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

1.1 Product identifier

Trade name	:	Diesel (ULSD)
Product code	:	002D5942
Other means of identification	:	MARPOL annex I category: Gas oils, including ship's bunkers

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

Use of the Substance/Mixture	:	Fuel for diesel engines used in both on-road and off-road applications.
Recommended restrictions on use	:	This product must not be used in applications other than those listed in Section 1 without first seeking the advice of the supplier., This product is not to be used as a solvent or cleaning agent; for lighting or brightening fires; as a skin cleanser.

1.3 Details of the supplier of the safety data sheet

Company	:	**Shell Trading Rotterdam B.V.** Weena 505 3013 AL Rotterdam Netherlands
Telephone	:	+31 10 441 5000
Telefax	:	
E-mail address of person responsible for the SDS	:	TRsds@shell.com

1.4 Emergency telephone number

Emergency telephone number	:	+44 (0) 20 7934 7778 ; National Poison Information Centre (NVIC): +31(0)88 755 8000 (24 hr a day and 7 days a week)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification T.R. SEA No 28848

Flammable liquids, Category 3	H226: Flammable liquid and vapour.
Aspiration hazard, Category 1	H304: May be fatal if swallowed and enters airways.
Skin irritation, Category 2	H315: Causes skin irritation.
Acute toxicity, Category 4	H332: Harmful if inhaled.
Carcinogenicity, Category 2	H351: Suspected of causing cancer.
Reproductive toxicity, Category 1B	H360FD: May damage fertility. May damage the unborn child.
Specific target organ toxicity - repeated exposure, Category 2, Blood , thymus , Liver	H373: May cause damage to organs through prolonged or repeated exposure.
Long-term (chronic) aquatic hazard, Category 2	H411: Toxic to aquatic life with long lasting effects.

2.2 Label elements

Labelling T.R. SEA No 28848

Hazard pictograms :



Signal word : Danger

Hazard statements :

	PHYSICAL HAZARDS:
H226	Flammable liquid and vapour.
	HEALTH HAZARDS:
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H332	Harmful if inhaled.
H351	Suspected of causing cancer.
H360FD	May damage fertility. May damage the unborn child.
H373	May cause damage to organs (Blood, Liver, thymus) through prolonged or repeated exposure.
	ENVIRONMENTAL HAZARDS:
H411	Toxic to aquatic life with long lasting effects.

Precautionary statements : **Prevention:**

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P273	Avoid release to the environment.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:	
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P331	Do NOT induce vomiting.
Storage:	
P403 + P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
Disposal:	
P501	Dispose of contents/ container to an approved waste disposal plant.

2.3 Other hazards

This mixture does not contain any REACH registered substances that are assessed to be a PBT or a vPvB.
May ignite on surfaces at temperatures above auto-ignition temperature.
Vapour in the headspace of tanks and containers may ignite and explode at temperatures exceeding auto-ignition temperature, where vapour concentrations are within the flammability range.
This material is a static accumulator.
Even with proper grounding and bonding, this material can still accumulate an electrostatic charge.
If sufficient charge is allowed to accumulate, electrostatic discharge and ignition of flammable air-vapour mixtures can occur.
This product is intended for use in closed systems only.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical nature : May also contain several additives at <0.1% v/v each.

: May contain methyl and ethyl esters from lipid sources

: May contain catalytically cracked oils in which polycyclic aromatic compounds, mainly 3-ring but some 4- to 6-ring species are present.

Hazardous components

Chemical name	CAS-No. EC-No. Registration number	T.R. SEA No 28848	Concentration (% w/w)
Fuels, diesel	68334-30-5 269-822-7	Flam. Liq.3; H226 Asp. Tox.1; H304 Acute Tox.4; H332 Skin Irrit.2; H315 Carc.2; H351	>= 50 - <= 100

		Repr.1B; H360FD STOT RE2; H373 Aquatic Chronic2; H411	
Distillates (Fischer-Tropsch), C8-26 - Branched and Linear	848301-67-7 481-740-5 / 01-0000468549-54	Asp. Tox.1; H304	>= 0 - <= 25
Kerosene (Fischer Tropsch), Full range, C8-C16 branched and linear	848301-66-6 481-670-5	Flam. Liq.3; H226 Asp. Tox.1; H304 EUH066	>= 0 - <= 25
Distillates (Fischer - Tropsch), heavy, C18-50 – branched, cyclic and linear	848301-69-9 482-220-0		>= 0 - <= 20
Renewable hydrocarbons, diesel type fraction (Alkanes, C10-20-branched and linear)	928771-01-1 700-571-2	Flam. Liq.3; H226 Asp. Tox.1; H304	>= 0 - <= 20
Fatty acids, C16-18 and C18-unsatd., Me esters (FAME, Biodiesel)	67762-38-3 267-015-4		>= 0 - <= 7
2-ethylhexyl nitrate	27247-96-7 248-363-6	Acute Tox.4; H332 Acute Tox.4; H312 Acute Tox.4; H302 Aquatic Acute1; H400 Aquatic Chronic1; H410 EUH044 EUH066	>= 0 - <= 0,3

Remarks : Dyes and markers can be used to indicate tax status and prevent fraud.

For explanation of abbreviations see section 16.

Further information

Contains:

Chemical name	Identification number	Concentration (% w/w)
Naphthalene	91-20-3	>= 0 - <= 1

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice : Not expected to be a health hazard when used under normal

conditions.

Protection of first-aiders	:	When administering first aid, ensure that you are wearing the appropriate personal protective equipment according to the incident, injury and surroundings.
If inhaled	:	Call emergency number for your location / facility. Remove to fresh air. Do not attempt to rescue the victim unless proper respiratory protection is worn. If the victim has difficulty breathing or tightness of the chest, is dizzy, vomiting, or unresponsive, give 100% oxygen with rescue breathing or Cardio-Pulmonary Resuscitation as required and transport to the nearest medical facility.
In case of skin contact	:	Remove contaminated clothing. Immediately flush skin with large amounts of water for at least 15 minutes, and follow by washing with soap and water if available. If redness, swelling, pain and/or blisters occur, transport to the nearest medical facility for additional treatment. When using high pressure equipment, injection of product under the skin can occur. If high pressure injuries occur, the casualty should be sent immediately to a hospital. Do not wait for symptoms to develop. Obtain medical attention even in the absence of apparent wounds.
In case of eye contact	:	Flush eye with copious quantities of water. Remove contact lenses, if present and easy to do. Continue rinsing. If persistent irritation occurs, obtain medical attention.
If swallowed	:	Call emergency number for your location / facility. If swallowed, do not induce vomiting: transport to nearest medical facility for additional treatment. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. If any of the following delayed signs and symptoms appear within the next 6 hours, transport to the nearest medical facility: fever greater than 101° F (38.3°C), shortness of breath, chest congestion or continued coughing or wheezing.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms	:	Respiratory irritation signs and symptoms may include a temporary burning sensation of the nose and throat, coughing, and/or difficulty breathing. Skin irritation signs and symptoms may include a burning sensation, redness, swelling, and/or blisters. Eye irritation signs and symptoms may include a burning sensation, redness, swelling, and/or blurred vision. If material enters lungs, signs and symptoms may include

coughing, choking, wheezing, difficulty in breathing, chest congestion, shortness of breath, and/or fever.
If any of the following delayed signs and symptoms appear within the next 6 hours, transport to the nearest medical facility: fever greater than 101° F (38.3°C), shortness of breath, chest congestion or continued coughing or wheezing.
Liver damage may be indicated by loss of appetite, jaundice (yellowish skin and eye colour), fatigue, bleeding or easy bruising and sometimes pain and swelling in the upper right abdomen.

Damage to blood-forming organs may be evidenced by: a) fatigue and anaemia (RBC), b) decreased resistance to infection, and/or excessive bruising and bleeding (platelet effect).

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : Call a doctor or poison control center for guidance.
Potential for chemical pneumonitis.
Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.

Unsuitable extinguishing media : Do not use direct water jets on the burning product as they could cause a steam explosion and spread of the fire.
Simultaneous use of foam and water on the same surface is to be avoided as water destroys the foam.

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting : Hazardous combustion products may include:
A complex mixture of airborne solid and liquid particulates and gases (smoke).
Oxides of sulphur.
Unidentified organic and inorganic compounds.
Carbon monoxide may be evolved if incomplete combustion occurs.
Will float and can be reignited on surface water.
Flammable vapours may be present even at temperatures below the flash point.
The vapour is heavier than air, spreads along the ground and distant ignition is possible.

5.3 Advice for firefighters

Special protective equipment for firefighters	:	Proper protective equipment including chemical resistant gloves are to be worn; chemical resistant suit is indicated if large contact with spilled product is expected. Self-Contained Breathing Apparatus must be worn when approaching a fire in a confined space. Select fire fighter's clothing approved to relevant Standards (e.g. Europe: EN469).
Specific extinguishing methods	:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Further information	:	Clear fire area of all non-emergency personnel. Keep adjacent containers cool by spraying with water. If possible remove containers from the danger zone. If the fire cannot be extinguished the only course of action is to evacuate immediately. Contain residual material at affected sites to prevent material from entering drains (sewers), ditches, and waterways.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions	:	Do not breathe fumes, vapour. Do not operate electrical equipment. Shut off leaks, if possible without personal risks. Remove all possible sources of ignition in the surrounding area and evacuate all personnel. Attempt to disperse the gas or to direct its flow to a safe location for example by using fog sprays. Take precautionary measures against static discharge. Ensure electrical continuity by bonding and grounding (earthing) all equipment. Monitor area with combustible gas meter.

6.2 Environmental precautions

Environmental precautions	:	Take measures to minimise the effects on groundwater. Contain residual material at affected sites to prevent material from entering drains (sewers), ditches, and waterways. Prevent from spreading or entering into drains, ditches or rivers by using sand, earth, or other appropriate barriers.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up	:	For small liquid spills (< 1 drum), transfer by mechanical means to a labeled, sealable container for product recovery or safe disposal. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely. Remove contaminated soil and dispose of safely.

For large liquid spills (> 1 drum), transfer by mechanical means such as vacuum truck to a salvage tank for recovery or safe disposal. Do not flush away residues with water. Retain as contaminated waste. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely. Remove contaminated soil and dispose of safely Prevent from spreading or entering into drains, ditches or rivers by using sand, earth, or other appropriate barriers.

6.4 Reference to other sections

For guidance on selection of personal protective equipment see Section 8 of this Safety Data Sheet., Notify authorities if any exposure to the general public or the environment occurs or is likely to occur., For guidance on disposal of spilled material see Section 13 of this Safety Data Sheet., Local authorities should be advised if significant spillages cannot be contained., Maritime spillages should be dealt with using a Shipboard Oil Pollution Emergency Plan (SOPEP), as required by MARPOL Annex 1 Regulation 26.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Technical measures	:	Avoid breathing of or direct contact with material. Only use in well ventilated areas. Wash thoroughly after handling. For guidance on selection of personal protective equipment see Section 8 of this Safety Data Sheet. Use local exhaust ventilation if there is risk of inhalation of vapours, mists or aerosols. Use the information in this data sheet as input to a risk assessment of local circumstances to help determine appropriate controls for safe handling, storage and disposal of this material. Prevent spillages. Never siphon by mouth. Air-dry contaminated clothing in a well-ventilated area before laundering. Contaminated leather articles including shoes cannot be decontaminated and should be destroyed to prevent reuse. Maintenance and Fuelling Activities - Avoid inhalation of vapours and contact with skin.
Advice on safe handling	:	Ensure that all local regulations regarding handling and storage facilities are followed. Avoid inhaling vapour and/or mists. Avoid prolonged or repeated contact with skin. When using do not eat or drink. Extinguish any naked flames. Do not smoke. Remove ignition sources. Avoid sparks. Earth all equipment. Properly dispose of any contaminated rags or cleaning mate-

rials in order to prevent fires.
Use local exhaust ventilation if there is risk of inhalation of vapours, mists or aerosols.
The vapour is heavier than air, spreads along the ground and distant ignition is possible.

Hygiene measures : Always observe good personal hygiene measures, such as washing hands after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping. Define procedures for safe handling and maintenance of controls. Educate and train workers in the hazards and control measures relevant to normal activities associated with this product. Ensure appropriate selection, testing and maintenance of equipment used to control exposure, e.g. personal protective equipment, local exhaust ventilation. Drain down system prior to equipment break-in or maintenance. Retain drain downs in sealed storage pending disposal or subsequent recycle. Do not ingest. If swallowed, then seek immediate medical assistance. If repeated and/or prolonged skin exposure to the substance is likely, then wear suitable gloves tested to EN374 and provide employee skin care programmes.

7.2 Conditions for safe storage, including any incompatibilities

Other data : Drum and small container storage: Drums should be stacked to a maximum of 3 high. Use properly labeled and closable containers. Tank storage: Tanks must be specifically designed for use with this product. Bulk storage tanks should be diked (bunded). Locate tanks away from heat and other sources of ignition. Must be stored in a diked (bunded) well- ventilated area, away from sunlight, ignition sources and other sources of heat. Vapours from tanks should not be released to atmosphere. Breathing losses during storage should be controlled by a suitable vapour treatment system. The vapour is heavier than air. Beware of accumulation in pits and confined spaces. Keep container tightly closed and in a cool, well-ventilated place. Keep in a cool place. Electrostatic charges will be generated during pumping. Electrostatic discharge may cause fire. Ensure electrical continuity by bonding and grounding (earthing) all equipment to reduce the risk. The vapours in the head space of the storage vessel may lie in the flammable/explosive range and hence may be flammable. Refer to section 15 for any additional specific legislation covering the packaging and storage of this product. Keep in a bunded area with a sealed (low permeability) floor, to provide containment against spillage. Prevent ingress of water.

Packaging material : Suitable material: For containers, or container linings use mild steel, stainless steel., Aluminium may also be used for applications where it does not present an unnecessary fire hazard., Examples of suitable materials are: high density polyethylene (HDPE) and Viton (FKM), which have been specifically tested for compatibility with this product., For container linings, use amine-adduct cured epoxy paint., For seals and gaskets use: graphite, PTFE, Viton A, Viton B.
Unsuitable material: Some synthetic materials may be unsuitable for containers or container linings depending on the material specification and intended use. Examples of materials to avoid are: natural rubber (NR), nitrile rubber (NBR), ethylene propylene rubber (EPDM), polymethyl methacrylate (PMMA), polystyrene, polyvinyl chloride (PVC), polyisobutylene., However, some may be suitable for glove materials.

7.3 Specific end use(s)

Specific use(s) : Please refer to section 16 and/or the annexes for the registered uses under REACH.

See additional references that provide safe handling practices for liquids that are determined to be static accumulators: American Petroleum Institute 2003 (Protection Against Ignitions Arising out of Static, Lightning and Stray Currents) or National Fire Protection Agency 77 (Recommended Practices on Static Electricity).
IEC/TS 60079-32-1: Electrostatic hazards, guidance
Ensure that all local regulations regarding handling and storage facilities are followed.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Naphthalene	91-20-3	TWA (8 Hour)	10 ppm 50 mg/m3	TR OEL
		TWA	10 ppm 50 mg/m3	91/322/EEC
Further information	Indicative			

Biological occupational exposure limits

No biological limit allocated.

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Fuels, diesel; Gasoil — unspecified	:	End Use: Workers Exposure routes: Inhalation Potential health effects: Long-term systemic effects Value: 5,49 mg/m3 End Use: Workers Exposure routes: Dermal Potential health effects: Long-term systemic effects Value: 2,91 mg/kg/day End Use: Workers Exposure routes: Inhalation Potential health effects: Acute systemic effects Value: 4,25 g/m3 End Use: Consumers Exposure routes: Inhalation Potential health effects: Long-term systemic effects Value: 1,16 mg/m3 End Use: Consumers Exposure routes: Inhalation Potential health effects: Acute systemic effects Value: 2,57 g/m3 End Use: Consumers Exposure routes: Dermal Potential health effects: Long-term systemic effects Value: 1,25 mg/kg/day End Use: Consumers Exposure routes: Oral Potential health effects: Long-term systemic effects Value: 0,83 mg/kg/day
naphthalene	:	End Use: Consumers Exposure routes: Oral Potential health effects: Long-term systemic effects Value: 4,23 mg/kg

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance is a hydrocarbon with a complex, unknown or variable composition. Conventional methods of deriving PNECs are not appropriate and it is not possible to identify a single representative PNEC for such substances.

8.2 Exposure controls

Engineering measures

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Select controls based on a risk assessment of local circumstances. Appropriate measures include:
Use sealed systems as far as possible.
Firewater monitors and deluge systems are recommended.
Adequate explosion-proof ventilation to control airborne concentrations below the exposure guidelines/limits.
Local exhaust ventilation is recommended.

Eye washes and showers for emergency use.

General Information
Always observe good personal hygiene measures, such as washing hands after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.
Define procedures for safe handling and maintenance of controls.
Educate and train workers in the hazards and control measures relevant to normal activities associated with this product.
Ensure appropriate selection, testing and maintenance of equipment used to control exposure, e.g. personal protective equipment, local exhaust ventilation.
Drain down system prior to equipment break-in or maintenance.
Retain drain downs in sealed storage pending disposal or subsequent recycle.
Do not ingest. If swallowed, then seek immediate medical assistance

Personal protective equipment

Eye protection	:	If material is handled such that it could be splashed into eyes, protective eyewear is recommended. If a local risk assessment deems it so then chemical splash goggles may not be required and safety glasses may provide adequate eye protection.
Hand protection		
Remarks	:	Where hand contact with the product may occur the use of gloves approved to relevant standards (e.g. Europe: EN374, US: F739) made from the following materials may provide suitable chemical protection. When prolonged or frequent repeated contact occurs. Nitrile rubber. For incidental contact/splash protection Neoprene, PVC gloves may be suitable. For continuous contact we recommend gloves with breakthrough time of more than 240 minutes with preference for > 480 minutes where suitable gloves can be identified. For short-term/splash protection we recommend the same but recognize that suitable gloves offering this level of protection may not be available and in this case a lower breakthrough time maybe acceptable so long as appropriate maintenance and replacement regimes are followed. Glove thickness is not a good predictor of glove resistance to a chemical as it is dependent on the exact composition of the glove material. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturizer is recommended.
Skin and body protection	:	Wear chemical resistant gloves/gauntlets and boots. Where risk of splashing, also wear an apron.

Respiratory protection	:	If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, select respiratory protection equipment suitable for the specific conditions of use and meeting relevant legislation. Check with respiratory protective equipment suppliers. Where air-filtering respirators are unsuitable (e.g. airborne concentrations are high, risk of oxygen deficiency, confined space) use appropriate positive pressure breathing apparatus. Where air-filtering respirators are suitable, select an appropriate combination of mask and filter. Select a filter suitable for the combination of organic gases and vapours and particles [Type A/Type P boiling point >65°C (149°F)].
Protective measures	:	Personal protective equipment (PPE) should meet recommended national standards. Check with PPE suppliers.
Thermal hazards	:	Not applicable

Environmental exposure controls

General advice	:	Local guidelines on emission limits for volatile substances must be observed for the discharge of exhaust air containing vapour. Minimise release to the environment. An environmental assessment must be made to ensure compliance with local environmental legislation. Information on accidental release measures are to be found in section 6.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	:	liquid
Colour	:	Undyed
Odour	:	Hydrocarbon
Odour Threshold	:	Data not available
pH	:	Not applicable
Melting point/freezing point	:	Method: Unspecified Data not available
Pour point		-40 - 6 °C Method: ASTM D5950
Boiling point/boiling range	:	170 - 390 °C

Flash point	:	55 - 75 °C
Evaporation rate	:	Data not available
Flammability		
Flammability (solid, gas)	:	Not applicable
Lower explosion limit and upper explosion limit / flammability limit		
Upper explosion limit	:	6 %(V)
Lower explosion limit	:	1 %(V)
Vapour pressure	:	0,4 kPa (38,0 °C) Method: Unspecified
		0,6 kPa (50,0 °C) Method: Unspecified
Relative vapour density	:	>= 4 Method: No information available.
Relative density	:	Data not available
Density	:	820 - 890 kg/m3 (15,0 °C)
Solubility(ies)		
Water solubility	:	negligible
Solubility in other solvents	:	Data not available
Partition coefficient: n-octanol/water	:	log Pow: ca. 2 - 15
Auto-ignition temperature	:	> 220 °C
Decomposition temperature	:	Data not available
Viscosity		
Viscosity, kinematic	:	1,5 - 6 mm2/s (40 °C)
Explosive properties	:	Classification Code: Not classified

Oxidizing properties	:	Not applicable

9.2 Other information

Conductivity	:	Low conductivity: < 100 pS/m, The conductivity of this material makes it a static accumulator., A liquid is typically considered nonconductive if its conductivity is below 100 pS/m and is considered semi-conductive if its conductivity is below 10,000 pS/m., Whether a liquid is nonconductive or semiconductive, the precautions are the same., A number of factors, for example liquid temperature, presence of contaminants, and anti-static additives can greatly influence the conductivity of a liquid

SECTION 10: Stability and reactivity

10.1 Reactivity

The product does not pose any further reactivity hazards in addition to those listed in the following sub-paragraph.

10.2 Chemical stability

Stable under normal use conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions	:	No hazardous reaction is expected when handled and stored according to provisions

10.4 Conditions to avoid

Conditions to avoid	:	Avoid heat, sparks, open flames and other ignition sources. In certain circumstances product can ignite due to static electricity.

10.5 Incompatible materials

Materials to avoid	:	Strong oxidising agents.

10.6 Hazardous decomposition products

Hazardous decomposition products are not expected to form during normal storage.
Thermal decomposition is highly dependent on conditions. A complex mixture of airborne solids, liquids and gases including carbon monoxide, carbon dioxide, sulphur oxides and unidentified organic compounds will be evolved when this material undergoes combustion or thermal or oxidative degradation.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Information on likely routes of exposure	:	Skin and eye contact are the primary routes of exposure although exposure may occur through inhalation or following accidental ingestion.

Acute toxicity

Product:

Acute oral toxicity	:	LD50 (rat): > 5.000 mg/kg Remarks: Low toxicity
Acute inhalation toxicity	:	LC 50 (Rat): Exposure time: 4 h Remarks: Harmful if inhaled.
Acute dermal toxicity	:	LD 50 (Rabbit): > 2.000 mg/kg Remarks: Low toxicity

Components:

Distillates (Fischer-Tropsch), C8-26 - Branched and Linear:

Acute oral toxicity	:	LD50 (Rat): > 5.000 mg/kg Remarks: Based on available data, the classification criteria are not met.
Acute inhalation toxicity	:	LC50 (Rat): > 5 mg/l Exposure time: 4 h Remarks: Based on available data, the classification criteria are not met.
Acute dermal toxicity	:	LD50 (Rat): > 2.000 mg/kg Remarks: Based on available data, the classification criteria are not met.

Kerosene (Fischer Tropsch), Full range, C8-C16 branched and linear:

Acute oral toxicity	:	LD 50 (rat): > 5.000 mg/kg Remarks: Low toxicity Based on available data, the classification criteria are not met.
Acute inhalation toxicity	:	(Rat): > 5 mg/l Exposure time: 4 h Remarks: Low toxicity Based on available data, the classification criteria are not met.
Acute dermal toxicity	:	(Rat): Remarks: LD50 >2000 mg/kg Low toxicity Based on available data, the classification criteria are not met.

Renewable hydrocarbons, diesel type fraction (Alkanes, C10-20-branched and linear):

Acute oral toxicity	:	LD50 (Rat): > 5.000 mg/kg Remarks: Based on available data, the classification criteria are not met.

Acute inhalation toxicity	:	LC50: > 5 mg/l Exposure time: 4 h Remarks: Based on available data, the classification criteria are not met.
Acute dermal toxicity	:	LD50 (Rat): > 2.000 mg/kg Remarks: Based on available data, the classification criteria are not met.

Fatty acids, C16-18 and C18-unsatd., Me esters (FAME, Biodiesel):

Acute oral toxicity	:	Remarks: Low toxicity LD50 > 5000 mg/kg
Acute inhalation toxicity	:	Remarks: Low toxicity if inhaled. Based on available data, the classification criteria are not met.
Acute dermal toxicity	:	Remarks: LD50 > 5000 mg/kg Low toxicity Based on available data, the classification criteria are not met.
Acute toxicity (other routes of administration)	:	Remarks: Not a respiratory irritant

Skin corrosion/irritation

Product:

Remarks: Irritating to skin.

Components:

Fuels, diesel:
Species: Rabbit
Assessment: Irritating to skin.
Method: Test(s) equivalent or similar to OECD Test Guideline 404

Distillates (Fischer-Tropsch), C8-26 - Branched and Linear:
Remarks: Not irritating to skin.
Based on available data, the classification criteria are not met.

Kerosene (Fischer Tropsch), Full range, C8-C16 branched and linear:
Remarks: Slightly irritating to skin.
Based on available data, the classification criteria are not met.

Renewable hydrocarbons, diesel type fraction (Alkanes, C10-20-branched and linear):
Remarks: Not irritating to skin.
Based on available data, the classification criteria are not met.

Fatty acids, C16-18 and C18-unsatd., Me esters (FAME, Biodiesel):

Remarks: Not irritating to skin.

Serious eye damage/eye irritation

Product:

Remarks: Slightly irritating to the eye.
Based on available data, the classification criteria are not met.

Components:

Distillates (Fischer-Tropsch), C8-26 - Branched and Linear:
Remarks: Not irritating to eye.
Based on available data, the classification criteria are not met.

Kerosene (Fischer Tropsch), Full range, C8-C16 branched and linear:
Remarks: Slightly irritating to the eye.
Based on available data, the classification criteria are not met.

Renewable hydrocarbons, diesel type fraction (Alkanes, C10-20-branched and linear):
Remarks: Not irritating to eye.
Based on available data, the classification criteria are not met.

Fatty acids, C16-18 and C18-unsatd., Me esters (FAME, Biodiesel):
Remarks: Not irritating to eye.

Respiratory or skin sensitisation

Product:

Remarks: Not a sensitiser.
Based on available data, the classification criteria are not met.

Components:

Distillates (Fischer-Tropsch), C8-26 - Branched and Linear:
Remarks: Not a sensitiser.
Based on available data, the classification criteria are not met.

Kerosene (Fischer Tropsch), Full range, C8-C16 branched and linear:
Remarks: Not a sensitiser.
Based on available data, the classification criteria are not met.

Renewable hydrocarbons, diesel type fraction (Alkanes, C10-20-branched and linear):
Remarks: Not a sensitiser.
Based on available data, the classification criteria are not met.

Fatty acids, C16-18 and C18-unsatd., Me esters (FAME, Biodiesel):
Remarks: Not a sensitiser.
Based on available data, the classification criteria are not met.

Germ cell mutagenicity

Product:

Genotoxicity in vivo : Remarks: Positive in in-vitro, but negative in in-vivo mutagenicity assays.

Components:

Distillates (Fischer-Tropsch), C8-26 - Branched and Linear:

Genotoxicity in vitro : Remarks: Based on available data, the classification criteria are not met.

Genotoxicity in vivo : Remarks: Not mutagenic.
Based on available data, the classification criteria are not met.

Kerosene (Fischer Tropsch), Full range, C8-C16 branched and linear:

Genotoxicity in vivo : Remarks: Non mutagenic

Renewable hydrocarbons, diesel type fraction (Alkanes, C10-20-branched and linear):

Genotoxicity in vitro : Remarks: Based on available data, the classification criteria are not met.

Genotoxicity in vivo : Remarks: Not mutagenic.
Based on available data, the classification criteria are not met.

Fatty acids, C16-18 and C18-unsatd., Me esters (FAME, Biodiesel):

Genotoxicity in vivo : Remarks: Non mutagenic

Carcinogenicity

Product:

Remarks: Limited evidence of carcinogenic effect
Repeated skin contact has resulted in irritation and skin cancer in animals.

Components:

Distillates (Fischer-Tropsch), C8-26 - Branched and Linear:
Remarks: Not a carcinogen.
Based on available data, the classification criteria are not met.

Kerosene (Fischer Tropsch), Full range, C8-C16 branched and linear:
Remarks: Not a carcinogen.
Based on available data, the classification criteria are not met.

Renewable hydrocarbons, diesel type fraction (Alkanes, C10-20-branched and linear):
Remarks: Not a carcinogen.
Based on available data, the classification criteria are not met.

Fatty acids, C16-18 and C18-unsatd., Me esters (FAME, Biodiesel):
Remarks: Not a carcinogen.
Based on available data, the classification criteria are not met.

Material	SEA Carcinogenicity Classification
Fuels, diesel	Carcinogenicity Category 2
Distillates (Fischer-Tropsch), C8-26 - Branched and Linear	No carcinogenicity classification.
Naphthalene	Carcinogenicity Category 2
Kerosene (Fischer Tropsch), Full range, C8-C16 branched and linear	No carcinogenicity classification.
Distillates (Fischer - Tropsch), heavy, C18-50 – branched, cyclic and linear	No carcinogenicity classification.
Renewable hydrocarbons, diesel type fraction (Alkanes, C10-20-branched and linear)	No carcinogenicity classification.
Fatty acids, C16-18 and C18-unsatd., Me esters (FAME, Biodiesel)	No carcinogenicity classification.
2-ethylhexyl nitrate	No carcinogenicity classification.

Material	Other Carcinogenicity Classification
Fuels, diesel	IARC: Group 3: Not classifiable as to its carcinogenicity to humans
Naphthalene	IARC: Group 2B: Possibly carcinogenic to humans

Reproductive toxicity

Product:

Effects on fertility : Remarks: Based on available data, the classification criteria are not met.
Not a developmental toxicant.
Does not impair fertility.

Components:

Fuels, diesel:
Effects on fertility : Remarks: May damage fertility. May damage the unborn child.

Distillates (Fischer-Tropsch), C8-26 - Branched and Linear:
Effects on fertility :
Remarks: Does not impair fertility.
Not a developmental toxicant.
Based on available data, the classification criteria are not met.

Kerosene (Fischer Tropsch), Full range, C8-C16 branched and linear:
Effects on fertility :
Remarks: Not a developmental toxicant.
Based on available data, the classification criteria are not met.
Does not impair fertility.

Renewable hydrocarbons, diesel type fraction (Alkanes, C10-20-branched and linear):
Effects on fertility :
Remarks: Does not impair fertility.
Not a developmental toxicant.
Based on available data, the classification criteria are not met.

Fatty acids, C16-18 and C18-unsatd., Me esters (FAME, Biodiesel):
Effects on fertility :
Remarks: Not a developmental toxicant.
Based on available data, the classification criteria are not met.
Does not impair fertility.

STOT - single exposure

Product:
Remarks: Not classified.

Components:
Distillates (Fischer-Tropsch), C8-26 - Branched and Linear:
Remarks: High concentrations may cause central nervous system depression resulting in headaches, dizziness and nausea.
Based on available data, the classification criteria are not met.

Kerosene (Fischer Tropsch), Full range, C8-C16 branched and linear:
Remarks: High concentrations may cause central nervous system depression resulting in headaches, dizziness and nausea; continued inhalation may result in unconsciousness and/or death.

Renewable hydrocarbons, diesel type fraction (Alkanes, C10-20-branched and linear):
Remarks: High concentrations may cause central nervous system depression resulting in headaches, dizziness and nausea.
Based on available data, the classification criteria are not met.

Fatty acids, C16-18 and C18-unsatd., Me esters (FAME, Biodiesel):
Remarks: Based on available data, the classification criteria are not met.

STOT - repeated exposure

Product:

Target Organs: Blood, thymus, Liver
Remarks: May cause damage to organs or organ systems through prolonged or repeated exposure.

Components:

Fuels, diesel:
Exposure routes: Oral, Dermal
Target Organs: Liver, thymus, Bone marrow
Assessment: May cause damage to organs through prolonged or repeated exposure.

Distillates (Fischer-Tropsch), C8-26 - Branched and Linear:
Remarks: Based on available data, the classification criteria are not met.

Kerosene (Fischer Tropsch), Full range, C8-C16 branched and linear:
Remarks: Based on available data, the classification criteria are not met.

Renewable hydrocarbons, diesel type fraction (Alkanes, C10-20-branched and linear):
Remarks: Based on available data, the classification criteria are not met.

Fatty acids, C16-18 and C18-unsatd., Me esters (FAME, Biodiesel):
Remarks: Based on available data, the classification criteria are not met.

Aspiration toxicity

Product:

Aspiration into the lungs when swallowed or vomited may cause chemical pneumonitis which can be fatal.

Components:

Distillates (Fischer-Tropsch), C8-26 - Branched and Linear:
Aspiration into the lungs when swallowed or vomited may cause chemical pneumonitis which can be fatal.
Kerosene (Fischer Tropsch), Full range, C8-C16 branched and linear:
Aspiration into the lungs when swallowed or vomited may cause chemical pneumonitis which can be fatal.
Renewable hydrocarbons, diesel type fraction (Alkanes, C10-20-branched and linear):
Aspiration into the lungs when swallowed or vomited may cause chemical pneumonitis which can be fatal.
Fatty acids, C16-18 and C18-unsatd., Me esters (FAME, Biodiesel):
Not an aspiration hazard., Based on available data, the classification criteria are not met.

Further information

Product:

Remarks: Classifications by other authorities under varying regulatory frameworks may exist.

Components:

Distillates (Fischer-Tropsch), C8-26 - Branched and Linear:
Remarks: Classifications by other authorities under varying regulatory frameworks may exist.

Kerosene (Fischer Tropsch), Full range, C8-C16 branched and linear:
Remarks: Classifications by other authorities under varying regulatory frameworks may exist.

Renewable hydrocarbons, diesel type fraction (Alkanes, C10-20-branched and linear):
Remarks: Classifications by other authorities under varying regulatory frameworks may exist.

Fatty acids, C16-18 and C18-unsatd., Me esters (FAME, Biodiesel):
Remarks: Classifications by other authorities under varying regulatory frameworks may exist.

SECTION 12: Ecological information

12.1 Toxicity

Product:

Toxicity to fish (Acute toxicity)	:	Remarks: LL/EL/IL50 > 1 <= 10 mg/l Toxic
Toxicity to daphnia and other aquatic invertebrates (Acute toxicity)	:	Remarks: LL/EL/IL50 > 1 <= 10 mg/l Toxic
Toxicity to algae (Acute toxicity)	:	Remarks: LL/EL/IL50 > 1 <= 10 mg/l Toxic
Toxicity to fish (Chronic toxicity)	:	Remarks: Data not available
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	Remarks: Data not available
Toxicity to bacteria (Acute toxicity)	:	Remarks: LL/EL/IL50 > 100 mg/l Practically non toxic: Based on available data, the classification criteria are not met.

Components:

Distillates (Fischer-Tropsch), C8-26 - Branched and Linear:

Toxicity to fish (Acute toxicity)	:	LL50 : > 1.000 mg/l Remarks: Based on available data, the classification criteria are not met.
Toxicity to daphnia and other aquatic invertebrates (Acute toxicity)	:	LL50 : > 1.000 mg/l Remarks: Based on available data, the classification criteria are not met.

Toxicity to algae (Acute toxicity)	:	LL50 : > 1.000 mg/l Remarks: Based on available data, the classification criteria are not met.
Toxicity to bacteria (Acute toxicity)	:	LL50 : > 100 mg/l Remarks: Based on available data, the classification criteria are not met.
Toxicity to fish (Chronic toxicity)	:	NOEC: 100 mg/l Remarks: Based on available data, the classification criteria are not met.
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC: 32 mg/l Remarks: Based on available data, the classification criteria are not met.

Kerosene (Fischer Tropsch), Full range, C8-C16 branched and linear:

Toxicity to fish (Acute toxicity)	:	Remarks: LL/EL/IL50 > 100 mg/l Practically non toxic: Based on available data, the classification criteria are not met.
Toxicity to daphnia and other aquatic invertebrates (Acute toxicity)	:	Remarks: LL/EL/IL50 > 100 mg/l Practically non toxic: Based on available data, the classification criteria are not met.
Toxicity to algae (Acute toxicity)	:	Remarks: LL/EL/IL50 > 100 mg/l Practically non toxic: Based on available data, the classification criteria are not met.
Toxicity to bacteria (Acute toxicity)	:	Remarks: LL/EL/IL50 > 100 mg/l Practically non toxic: Based on available data, the classification criteria are not met.
Toxicity to fish (Chronic toxicity)	:	Remarks: NOEC/NOEL/EL10 > 100 mg/l
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	Remarks: NOEC/NOEL/EL10 > 10 - <=100 mg/l

Renewable hydrocarbons, diesel type fraction (Alkanes, C10-20-branched and linear):

Toxicity to fish (Acute toxicity)	:	LL50 : > 1.000 mg/l Remarks: Based on available data, the classification criteria are not met.
Toxicity to daphnia and other aquatic invertebrates (Acute toxicity)	:	LL50 : > 1.000 mg/l Remarks: Based on available data, the classification criteria are not met.

Toxicity to algae (Acute toxicity)	:	LL50 : > 1.000 mg/l Remarks: Based on available data, the classification criteria are not met.
Toxicity to bacteria (Acute toxicity)	:	LL50 : > 100 mg/l Remarks: Based on available data, the classification criteria are not met.
Toxicity to fish (Chronic toxicity)	:	NOEC: 100 mg/l Remarks: Based on available data, the classification criteria are not met.
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC: 32 mg/l Remarks: Based on available data, the classification criteria are not met.

Fatty acids, C16-18 and C18-unsatd., Me esters (FAME, Biodiesel):

Toxicity to fish (Acute toxicity)	:	Remarks: Practically non toxic: LL/EL/IL50 > 100 mg/l
Toxicity to daphnia and other aquatic invertebrates (Acute toxicity)	:	Remarks: Practically non toxic: LL/EL/IL50 > 100 mg/l
Toxicity to algae (Acute toxicity)	:	Remarks: Practically non toxic: LL/EL/IL50 > 100 mg/l
Toxicity to bacteria (Acute toxicity)	:	Remarks: Practically non toxic: LL/EL/IL50 > 100 mg/l
Toxicity to fish (Chronic toxicity)	:	Remarks: Data not available
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	Remarks: Data not available

2-ethylhexyl nitrate:

Toxicity to daphnia and other aquatic invertebrates (Acute toxicity)	:	EC50 (Daphnia magna (Water flea)): 0,83 mg/l Exposure time: 48 h Method: Test(s) equivalent or similar to OECD Guideline 202 Remarks: Very toxic to aquatic organisms.
Toxicity to algae (Acute toxicity)	:	NOEC (green algae): 0,84 mg/l Exposure time: 72 h Method: Test(s) equivalent or similar to OECD Test Guideline 201 Remarks: Very toxic to algae.

12.2 Persistence and degradability

Product:

Biodegradability : Remarks: Readily biodegradable.
Not Persistent per IMO criteria.
International Oil Pollution Compensation (IOPC) Fund definition: “A non-persistent oil is oil, which, at the time of shipment, consists of hydrocarbon fractions, (a) at least 50% of which, by volume, distills at a temperature of 340ºC (645ºF) and (b) at least 95% of which, by volume, distils at a temperature of 370ºC (700ºF) when tested by the ASTM Method D-86/78 or any subsequent revision thereof."

Components:

Distillates (Fischer-Tropsch), C8-26 - Branched and Linear:

Biodegradability : Biodegradation: 80 %
Exposure time: 28 d
Method: OECD Test Guideline 301F
Remarks: Readily biodegradable.

Kerosene (Fischer Tropsch), Full range, C8-C16 branched and linear:

Biodegradability : Remarks: Product is not persistent.
Not Persistent per IMO criteria.
International Oil Pollution Compensation (IOPC) Fund definition: “A non-persistent oil is oil, which, at the time of shipment, consists of hydrocarbon fractions, (a) at least 50% of which, by volume, distills at a temperature of 340ºC (645ºF) and (b) at least 95% of which, by volume, distils at a temperature of 370ºC (700ºF) when tested by the ASTM Method D-86/78 or any subsequent revision thereof."

Renewable hydrocarbons, diesel type fraction (Alkanes, C10-20-branched and linear):

Biodegradability : Remarks: Readily biodegradable.

12.3 Bioaccumulative potential

Product:

Bioaccumulation : Remarks: Contains constituents with the potential to bioaccumulate.

Components:

Distillates (Fischer-Tropsch), C8-26 - Branched and Linear:

Bioaccumulation : Remarks: Contains constituents with the potential to bioaccumulate.

Kerosene (Fischer Tropsch), Full range, C8-C16 branched and linear:

Bioaccumulation : Remarks: Contains constituents with the potential to bioaccumulate.

Renewable hydrocarbons, diesel type fraction (Alkanes, C10-20-branched and linear):
Bioaccumulation : Remarks: Contains constituents with the potential to bioaccumulate.

Fatty acids, C16-18 and C18-unsatd., Me esters (FAME, Biodiesel):
Bioaccumulation : Remarks: Does not have the potential to bioaccumulate significantly.

12.4 Mobility in soil

Product:

Mobility : Remarks: Partly evaporates from water or soil surfaces, but a significant proportion will remain after one day., If product enters soil, one or more constituents will be mobile and may contaminate groundwater., Large volumes may penetrate soil and could contaminate groundwater., Floats on water.

Components:

Distillates (Fischer-Tropsch), C8-26 - Branched and Linear:
Mobility : Remarks: Floats on water., Partly evaporates from water or soil surfaces, but a significant proportion will remain after one day., Large volumes may penetrate soil and could contaminate groundwater.

Kerosene (Fischer Tropsch), Full range, C8-C16 branched and linear:
Mobility : Remarks: Partly evaporates from water or soil surfaces, but a significant proportion will remain after one day., Large volumes may penetrate soil and could contaminate groundwater., Floats on water.

Renewable hydrocarbons, diesel type fraction (Alkanes, C10-20-branched and linear):
Mobility : Remarks: Floats on water., Partly evaporates from water or soil surfaces, but a significant proportion will remain after one day., Large volumes may penetrate soil and could contaminate groundwater.

Fatty acids, C16-18 and C18-unsatd., Me esters (FAME, Biodiesel):
Mobility : Remarks: If product enters soil, one or more constituents will be highly mobile and may contaminate groundwater.

12.5 Results of PBT and vPvB assessment

Product:

Assessment : This mixture does not contain any REACH registered sub-

stances that are assessed to be a PBT or a vPvB..

Components:

Distillates (Fischer-Tropsch), C8-26 - Branched and Linear:

Assessment : The substance does not fulfill all screening criteria for persistence, bioaccumulation and toxicity and hence is not considered to be PBT or vPvB..

Kerosene (Fischer Tropsch), Full range, C8-C16 branched and linear:

Assessment : The substance does not fulfill all screening criteria for persistence, bioaccumulation and toxicity and hence is not considered to be PBT or vPvB..

Renewable hydrocarbons, diesel type fraction (Alkanes, C10-20-branched and linear):

Assessment : The substance does not fulfill all screening criteria for persistence, bioaccumulation and toxicity and hence is not considered to be PBT or vPvB..

Fatty acids, C16-18 and C18-unsatd., Me esters (FAME, Biodiesel):

Assessment : The substance does not fulfill all screening criteria for persistence, bioaccumulation and toxicity and hence is not considered to be PBT or vPvB..

12.6 Other adverse effects

Product:

Further information : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Additional ecological information : Remarks: Films formed on water may affect oxygen transfer and damage organisms.

Components:

Distillates (Fischer-Tropsch), C8-26 - Branched and Linear:

Additional ecological information : Remarks: Films formed on water may affect oxygen transfer and damage organisms.

Kerosene (Fischer Tropsch), Full range, C8-C16 branched and linear:

Additional ecological information : Remarks: Films formed on water may affect oxygen transfer and damage organisms.

Renewable hydrocarbons, diesel type fraction (Alkanes, C10-20-branched and linear):

Additional ecological information : Remarks: Films formed on water may affect oxygen transfer and damage organisms.

Fatty acids, C16-18 and C18-unsatd., Me esters (FAME, Biodiesel):

Additional ecological information	:	Remarks: Will exert oxygen demand when significant quantities enter watercourses and may cause damage to aquatic life.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product	:	Recover or recycle if possible. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste classification and disposal methods in compliance with applicable regulations. Do not dispose into the environment, in drains or in water courses. Do not dispose of tank water bottoms by allowing them to drain into the ground. This will result in soil and groundwater contamination. Waste arising from a spillage or tank cleaning should be disposed of in accordance with prevailing regulations, preferably to a recognised collector or contractor. The competence of the collector or contractor should be established beforehand. MARPOL - see International Convention for the Prevention of Pollution from Ships (MARPOL 73/78) which provides technical aspects at controlling pollutions from ships.
Contaminated packaging	:	Residues may cause an explosion hazard if heated above the flash point. Do not puncture, cut or weld uncleaned drums. Do not pollute the soil, water or environment with the waste container. Comply with any local recovery or waste disposal regulations. Dispose in accordance with prevailing regulations, preferably to a recognized collector or contractor. The competence of the collector or contractor should be established beforehand.

SECTION 14: Transport information

14.1 UN number

ADR	:	UN 1202
RID	:	UN 1202
IMDG	:	UN 1202

IATA : UN 1202

14.2 UN proper shipping name

ADR : DIESEL FUEL

RID : DIESEL FUEL

IMDG : DIESEL FUEL

IATA : DIESEL FUEL

14.3 Transport hazard class(es)

ADR : 3

RID : 3

IMDG : 3

IATA : 3

14.4 Packing group

ADR

Packing group : III
Classification Code : F1
Hazard Identification Number : 30
Labels : 3

RID

Packing group : III
Classification Code : F1
Hazard Identification Number : 30
Labels : 3

IMDG

Packing group : III
Labels : 3

IATA

Packing group : III
Labels : 3

14.5 Environmental hazards

ADR

Environmentally hazardous : yes

RID

Environmentally hazardous : yes

IMDG

Marine pollutant : yes

14.6 Special precautions for user

Remarks : Special Precautions: Refer to Section 7, Handling & Storage,

for special precautions which a user needs to be aware of or needs to comply with in connection with transport.

14.7 Maritime transport in bulk according to IMO instruments

MARPOL Annex 1 rules apply for bulk shipments by sea.

SECTION 15: Regulatory information

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

KKDIK (30105 (Bis)) - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex 17)	:	Conditions of restriction for the following entries should be considered: Entry number 3
Other regulations	:	The regulatory information is not intended to be comprehensive. Other regulations may apply to this material.
		Regulations on the health and safety precautions for chemicals in the workplace. Regulations on the fire protection of buildings. Regulations on the prevention of industrial accidents and the reduction of their effects.

The components of this product are reported in the following inventories:

EN EINECS	:	All components listed or polymer exempt.

15.2 Chemical safety assessment.

A Chemical Safety Assessment was performed for all substances of this product.

SECTION 16: Other information

Full text of H-Statements

EUH044	:	Risk of explosion if heated under confinement.
EUH066	:	Repeated exposure may cause skin dryness or cracking.
H226	:	Flammable liquid and vapour.
H302	:	Harmful if swallowed.
H304	:	May be fatal if swallowed and enters airways.
H312	:	Harmful in contact with skin.
H315	:	Causes skin irritation.
H332	:	Harmful if inhaled.
H351	:	Suspected of causing cancer.
H360FD	:	May damage fertility. May damage the unborn child.
H373	:	May cause damage to organs through prolonged or repeated

exposure.

H400	:	Very toxic to aquatic life.
H410	:	Very toxic to aquatic life with long lasting effects.
H411	:	Toxic to aquatic life with long lasting effects.
Acute Tox.	:	Acute toxicity
Aquatic Acute	:	Short-term (acute) aquatic hazard
Aquatic Chronic	:	Long-term (chronic) aquatic hazard
Asp. Tox.	:	Aspiration hazard
Carc.	:	Carcinogenicity
Flam. Liq.	:	Flammable liquids
Repr.	:	Reproductive toxicity
Skin Irrit.	:	Skin irritation
STOT RE	:	Specific target organ toxicity - repeated exposure
91/322/EEC / TWA	:	Limit Value - eight hours
SI OEL / MV	:	Time Weighted Average
SI OEL / KTV	:	Short Term Exposure Limit

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonised System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organisation; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardisation; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organisation for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Prepared by

Name	:	Eren Aktas
Certified Qualification date	:	15.05.2024
Certificate number	:	TÜV/11.241.01
Expiry date		15.05.2029

Further information

Training advice	:	Provide adequate information, instruction and training for operators.
Other information	:	This product is intended for use in closed systems only. A vertical bar (|) in the left margin indicates an amendment from the previous version. There has been an increase in the Health Hazard classification of this product in section 2. Ensure that the related sections (particularly sections 4, 8 & 11) are carefully studied.

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

TR / EN