

## Safety Data Sheet

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### 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### 1.1 Product Identifier

<b>Material Name:</b>	<b>St1 MDF (DMB) 0,1% S</b>
<b>REACH Registration No.:</b>	
<b>Synonyms:</b>	Marine gas oil

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

**Product Use:** Fuel for ships and other combustion equipment  
Distribution of substance, industrial  
Preparation and (re)packing of substances and its mixtures,  
industrial  
Use as a fuel, industrial  
Use as fuel, professional

**Uses Advised Against:** Applications that are not registered and risk assessed.

#### 1.3 Details of the supplier of the substance or mixture

**Manufacturer/Supplier:** St1 Refinery AB  
Box 8889  
402 72 Gothenburg, Sweden

**Telephone:** +46 (0) 31 744 6000

**Email Contact for MSDS:** bransle@st1.se or Supply-Sweden@st1.se

**1.4 Emergency Telephone Number:** 112 SOS Alarm  
Swedish Poisons Information Centre: +46 (0)8 331231

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### 2. HAZARDS IDENTIFICATION

#### 2.1 Classification of substance or mixture: Mixture

Regulation (EC) No 1272/2008 (CLP)	
Hazard classes / Hazard categories	Hazard Statement
Flammable liquids, Category 3	H226
Aspiration hazard, Category 1	H304
Skin corrosion/irritation, Category 2	H315
Acute toxicity, Category 4; Inhalation	H332
Carcinogenicity, Category 2	H351
STOT RE, Category 2	H373
Chronic hazards to the aquatic environment, Category 2	H411

Classification triggering components:

Contains petroleum distillates.

#### 2.2 Label Elements

##### Labeling according to Regulation (EC) No 1272/2008

Symbol(s):



Signal word:

DANGER

CLP Hazard Statements:

PHYSICAL HAZARDS:

H226: Flammable liquid and vapor.

HEALTH HAZARDS:

H304: May be fatal if swallowed and enters airways.

H315: Causes skin irritation.

H332: Harmful if inhaled.

H351: Suspected of causing cancer

H373: May cause damage to organs through prolonged or repeated exposure.

ENVIRONMENTAL HAZARDS:

H411: Toxic to aquatic life with long lasting effects.

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### CLP Precautionary statements

#### Prevention:

#### PREVENTION:

P201; P210; P233; P240; P241; P243; P260; P264; P270; P271;  
P273; P280

#### RESPONSE:

P301+P310; P302+P352; P304+P340; P308+P313; P312; P330;  
P331; P332+P313; P362+P364; P370+P378; P391

#### STORAGE:

P403+P233; P405

#### DISPOSAL:

P501

For more information regarding CLP Precautionary statements, see chapter 16.

## 2.3 Other Hazards

### Health Hazards:

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. Electrostatic charges may be generated during pumping. Electrostatic discharge may cause fire. The substance does not fulfil all screening criteria for persistence, bioaccumulation and toxicity and hence is not considered to be PBT or vPvB.

### Other Information:

This product is intended for use in closed systems only.

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## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Substance

Not a substance

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### 3.2 Mixtures:

#### Classification of components according to Regulation (EC) No 1272/2008

Chemical Name	CAS No.	EINECS	REACH Registration No.	Conc. vol%
Gas oils (petroleum), hydrosulfurized light vacuum	64742-87-6	265-190-1	01-2119485284-32	≤ 75
Fuels, diesel	68334-30-5	269-822-7	01-2119484664-27	≥ 25

Chemical Name	Hazard Class & Category	Hazard Statement
Gas oils (petroleum), hydrosulfurized light vacuum	Flam. Liq., 3; Asp. Tox., 1; Acute Tox., 4; Skin Corr., 2; Carc., 2; STOT RE, 2; Aquatic Chronic, 2	H226; H304; H315; H332; H351; H373; H411
Fuels, diesel	Flam. Liq, 3; Asp. Tox, 1; Skin Corr, 2; Acute Tox, 4; Carc, 2; STOT RE, 3; Aq. Chronic, 2	H226 H304; H315; H332; H351; H373; H411

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## 4. FIRST AID MEASURES

### 4.1 Description of First Aid Measures

- Inhalation:** Remove to fresh air. If rapid recovery does not occur, transport to nearest medical facility for additional treatment.
- 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.
- Eye contact:** Flush eye with copious quantities of water. If persistent irritation occurs, obtain medical attention.
- Ingestion:** 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 38 °C, shortness of breath, chest congestion or continued coughing or wheezing.

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<b>4.2 Most important symptoms/effects, acute &amp; delayed:</b>	If material enters lungs, signs and symptoms may include coughing, choking, wheezing, difficulty in breathing, chest congestion, shortness of breath, and/or fever. The onset of respiratory symptoms may be delayed for several hours after exposure. Defatting dermatitis signs and symptoms may include a burning sensation and/or a dried/cracked appearance.
<b>4.3 Indication of immediate medical attention and special treatment needed:</b>	Treat symptomatically.

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## 5. FIRE FIGHTING MEASURES

Clear fire area of all non-emergency personnel.

<b>5.1 Extinguishing Media:</b>	Foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.
<b>Unsuitable Extinguishing Media:</b>	Do not use water in a jet. Simultaneous use of foam and water on the same surface is to be avoided as water destroys the foam.
<b>5.2 Special hazards arising from substance or mixture:</b>	Hazardous combustion products may include: A complex mixture of airborne solid and liquid particulates and gases (smoke). Carbon monoxide. 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.
<b>5.3 Advice for fire-fighters:</b>	Wear full protective clothing and self-contained breathing apparatus.
<b>Additional Advice:</b>	Keep adjacent containers cool by spraying with water.

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## 6. ACCIDENTAL RELEASE MEASURES

### 6.1 Personal Precautions, Protective Equipment and Emergency Procedures:

<b>6.1.1 For non-emergency personnel:</b>	Avoid contact with spilled or released material. For guidance on selection of personal protective equipment see Chapter 8 of this Material Safety Data Sheet. See Chapter 13 for information on
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disposal. Observe the relevant local and international regulations. Evacuate the area of all non-essential personnel. Ventilate contaminated area thoroughly.

Do not breathe fumes, vapour. Do not operate electrical equipment.

### 6.1.2 For emergency personnel:

Use recommended safety equipment, see section 8. Keep unauthorized and unprotected people at a safe distance. Ensure good ventilation. Do not inhale vapours. Switch off equipment which has an exposed flame, glows, or has a heat source of some other kind.

### 6.2 Environmental Precautions:

Shut off leaks, if possible without personal risks. Remove all possible sources of ignition in the surrounding area. Use appropriate containment (of product and firefighting water) to avoid environmental contamination. Prevent from spreading or entering drains, ditches or rivers by using sand, earth, or other appropriate barriers. Attempt to disperse the vapour 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.

### 6.3 Methods and Material for Containment

For small liquid spills, transfer by mechanical means to a labelled, sealable container for product recovery or safe disposal. Absorb with a suitable absorbent material and dispose of safely. Remove contaminated soil and dispose of safely. Place in a suitable container with clearly marked container for disposal or recovery in accordance with local regulations.

For large liquid spills, transfer by mechanical means such as vacuum truck to a salvage tank for recovery or safe disposal. Do not flush away residues with water. Absorb with a suitable absorbent material and dispose of safely. Remove contaminated soil and dispose of safely. Shovel into a suitable clearly marked container for disposal or reclamation in accordance with local regulations.

### 6.4. Reference to other sections

See chapter 8 for more information about Personal Protective Equipment. See chapter 13 for more information about DISPOSAL CONSIDERATIONS. . Local regulations may be more stringent than regional or national requirements and must be complied with.

### Additional Advice:

Notify authorities if any exposure to the general public or the environment occurs or is likely to occur. 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.

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### 7. HANDLING AND STORAGE

#### 7.1. Precautions for safe handling

Avoid breathing vapours or contact with material. Only use in well ventilated areas. Wash thoroughly after handling. For guidance on selection of personal protective equipment see Chapter 8 of this Material Safety Data Sheet. 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. 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. Properly dispose of any contaminated rags or cleaning materials in order to prevent fires. Use local exhaust ventilation if there is risk of inhalation of vapours, mists or aerosols. Prevent spillages. For comprehensive advice on handling, product transfer, storage and tank cleaning refer to the product supplier.

Avoid inhaling vapour and/or mists. Electrostatic charges may be generated during pumping. Electrostatic discharge may cause fire. Extinguish any naked flames. Do not smoke. Remove ignition sources. Avoid sparks. Earth all equipment. Avoid prolonged or repeated contact with skin. When using do not eat or drink. The vapour is heavier than air, spreads along the ground and distant ignition is possible.

#### 7.2 Conditions for safe storage, including any incompatibilities:

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. The vapour is heavier than air. Beware of accumulation in pits and confined spaces.

Keep in a bunded area with a sealed (low permeability) floor, to provide containment against spillage. Prevent ingress of water.

#### 7.3 Specific End Uses:

Please refer to Ch16 and/or the annexes for the registered uses under REACH .

#### Additional Information:

Exposure to this product should be reduced as low as reasonably practicable. Ensure that all local regulations regarding handling and storage facilities are followed.

#### Product Transfer:

Avoid splash filling. Wait 2 minutes after tank filling (for tanks such as those on road tanker vehicles) before opening hatches or manholes. Wait 30 minutes after tank filling (for large storage tanks) before opening hatches or manholes. Keep containers closed

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when not in use. Do not use compressed air for filling, discharging or handling. Contamination resulting from product transfer may give rise to light hydrocarbon vapour in the headspace of tanks that have previously contained gasoline. This vapour may explode if there is a source of ignition. Partly filled containers present a greater hazard than those that are full, therefore handling, transfer and sampling activities need special care.

**Recommended Materials:** For containers, or container linings use mild steel, stainless steel.

**Unsuitable Materials:** 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), and polyisobutylene. However, some may be suitable for glove materials.

**Other Information:** Ensure that all local regulations regarding handling and storage are followed.

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**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**8.1 Control Parameters**

**Occupational Exposure Limits (OEL)**

Not established

**Biological Exposure Levels (BEI)**

No biological limit allocated.

**Derived No Effect Level (DNEL)**

Component	Exposure Route	Exposure Type Long/short	Application Area	Value
Fuels, diesel	Inhalation	Acute, systemic effects	Worker	4300 mg/m <sup>3</sup> / 15 min (aerosol)
	Dermal	Long term, systemic effects	Worker	2,9 mg/kg 8 h
	Inhalation	Long term, systemic effects	Worker	68 mg/m <sup>3</sup> /8 h (aerosol)
	Inhalation	Acute, systemic effects	Consumer	2600 mg/m <sup>3</sup> /15 min (aerosol)
	Dermal	Long term, systemic effects	Consumer	1,3 mg/kg 24 h
	Inhalation	Long term, systemic effects	Consumer	20 mg/m <sup>3</sup> /24 h (aerosol)



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**PNEC (Predicted no-effect concentration) related information:**

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  
General Information:**

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. Adequate ventilation to control airborne concentrations below the exposure guidelines/limits. Local exhaust ventilation is recommended. Eye washes and showers for emergency use

**Occupational Exposure Controls:  
Personal Protective Equipment:**

Personal protective equipment (PPE) should meet recommended national standards. Check with PPE suppliers.

**Eye Protection:**

Chemical splash goggles (chemical monogoggles). Approved to EU Standard EN166.

**Hand Protection:**

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. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, glove thickness, and dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Select gloves tested to a relevant standard (e.g. EN374 for chemical resistance and EN407 for heat resistance). For prolonged or repeated contact, use nitrile gloves (breakthrough time of > 240 minutes.) For incidental contact/splash, use Neoprene/PVC gloves.

**Body protection:**

Chemical resistant gloves/gauntlets, boots, and apron (where risk of splashing).

**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. All respiratory protection equipment and use must be in accordance with local regulations. Select a filter suitable for organic gases and vapours (boiling point >65 °C) meeting EN14387.

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<b>Monitoring Methods:</b>	Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls. For some substances biological monitoring may also be appropriate.
<b>Environmental Exposure Controls</b>	
<b>Environmental exposure control measures:</b>	Local guidelines on emission limits for volatile substances must be observed for the discharge of exhaust air containing vapour.
<b>Consumer Exposure Controls</b>	
<b>Exposure Control Measures for Consumers:</b>	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. Do not ingest. If swallowed then seek immediate medical assistance.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

<b>Appearance:</b>	Gulfärgad vätska
<b>Odour:</b>	Hydrocarbon
<b>Odour threshold:</b>	-
<b>pH:</b>	Not applicable
<b>Melting point/freezing point:</b>	0 °C
<b>Initial boiling point and boiling range:</b>	170 - 390°C
<b>Flash point:</b>	>60 °C
<b>Evaporation rate:</b>	-
<b>Flammability (solid, gas)</b>	-
<b>Upper/lower flammability or explosive limits:</b>	1 – 6 % (V)
<b>Vapour pressure, at 37,8 °C:</b>	<1 hPa
<b>Vapour density:</b>	-
<b>Relative density:</b>	Max 900 kg/m <sup>3</sup>
<b>Solubility(ies):</b>	Not solubility
<b>Partition coefficient: n-octanol/water:</b>	-
<b>Auto-ignition temperature:</b>	> 220°C
<b>Decomposition temperature:</b>	-
<b>Kinematics Viscosity, 40°C</b>	2 - 11 mm <sup>2</sup> /s
<b>Explosive properties:</b>	Not considered to be explosive
<b>Oxidising properties:</b>	Not considered to oxidise

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### 10. STABILITY AND REACTIVITY

<b>10.1 Reactivity:</b>	The product is not considered to be reactive.
<b>10.2 Chemical Stability</b>	Stable under normal conditions of use.
<b>10.3 Possibility of Hazardous Reactions:</b>	Under normal conditions of storage and use, there are no dangerous reactions.
<b>10.4 Conditions to Avoid:</b>	Avoid heat, sparks, open flames and other ignition sources.
<b>10.5 Incompatible Materials:</b>	Strong oxidising agents.
<b>10.6 Hazardous Decomposition Product:</b>	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 and other organic compounds will be evolved when this material undergoes combustion or thermal or oxidative degradation.

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### 11. TOXIKOLOGISK INFORMATION

#### 11.1 Information on Toxicological effects

<b>Basis for Assessment:</b>	Information given is based on product data, knowledge of the components and the toxicology of similar products.
<b>Likely Routes of Exposure:</b>	Skin and eye contact are the primary routes of exposure although exposure may occur through inhalation or following accidental ingestion.
<b>Acute Oral Toxicity:</b>	Low toxicity: LD50 >5000 mg/kg, Rat
<b>Acute Dermal Toxicity:</b>	Low toxicity: LD50 >2000 mg/kg, Rabbit.
<b>Acute Inhalation Toxicity:</b>	Harmful if inhaled: LC50 >1,0 – ≤5,0 mg/l/4 h, Rat.
<b>Skin Corrosion/Irritation:</b>	May cause irritation.
<b>Serious Eye Damage/Irritation:</b>	May cause irritation.
<b>Respiratory Irritation:</b>	May cause irritation.
<b>Respiratory or Skin Sensitisation Aspiration Hazard:</b>	Not expected to be a sensitizer. Aspiration into the lungs when swallowed or vomited may cause chemical pneumonitis which can be fatal.

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<b>Germ Cell Mutagenicity:</b>	Positive in in-vitro, but negative in in-vivo mutagenicity assays.
<b>Carcinogenicity:</b>	Limited evidence of carcinogenic effect. Repeated skin contact has resulted in irritation and skin cancer in animals.
<b>Reproductive and Developmental Toxicity:</b>	Not expected to impair fertility. Not classified as a developmental toxicant.
<b>Specific target organ toxicity- single exposure:</b>	Not classified.
<b>Specific target organ toxicity - repeated exposure:</b>	May cause damage to organs through prolonged or repeated exposure. Blood. Thymus. Liver.

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## 12. ECOLOGICAL INFORMATION

**Basis for Assessment:** Fuels are typically made from blending several refinery streams. Ecotoxicological studies have been carried out on a variety of hydrocarbon blends and streams but not those containing additives. Information given is based on knowledge of the components and the ecotoxicology of similar products.

### 12.1 Toxicity

**Acute Toxicity :** Expected to be toxic: LL/EL/IL50 1-10 mg/l (LL/EL50 expressed as the nominal amount of product required to prepare aqueous test extract)

**Fish:** Expected to be toxic: LL/EL/IL50 1-10 mg/l

**Aquatic Invertebrates:** Expected to be toxic: LL/EL/IL50 1-10 mg/l

**Algae:** Expected to be toxic: LL/EL/IL50 1-10 mg/l

**Microorganisms:** Not expected to be toxic: LL/EL/IL50 >100 mg/l

**Chronic Toxicity :** NOEC = No Observable Effect Concentration  
NOEL = No Observable Effect Level

**Fish:** NOEC/NOEL expected to be > 0,01 - ≤ 0,1 mg/l (based on test data).

**Aquatic Invertebrates :** NOEC/NOEL expected to be > 0,1 - ≤ 1,0 mg/l (based on test data)

### 12.2 Persistence and Degradability:

Readily biodegradable in water.

### 12.3 Bioaccumulative Potential:

Contains constituents with the potential to bioaccumulate.

### 12.4 Mobility:

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

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groundwater. Floats on water. Large volumes may penetrate soil and could contaminate groundwater.

### 12.5 Results of PBT and vPvB assessment:

The substance does not fulfill all screening criteria for persistence, bioaccumulation and toxicity and hence is not considered to be PBT or vPvB. PBT =Persistent, Bioaccumulative, Toxic.  
vPvB = very Persistent, very Bioaccumulative.

### 12.6 Other adverse effects:

Films formed on water may affect oxygen transfer and damage organisms.

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## 13. DISPOSAL CONSIDERATIONS

### 13.1 Waste Treatment Methods

#### Material Disposal:

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.

#### Container Disposal:

Send to drum recoverer or metal reclaimer. Drain container thoroughly. After draining, vent in a safe place away from sparks and fire. 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.

#### Local Legislation:

EU Waste Disposal Code (EWC):  
13 07 01 Fuel oil and diesel  
13 07 03 Other fuels (including mixtures)  
The number given to waste is associated with the appropriate usage. The user must decide if their particular use results in another waste code being assigned. Disposal should be in accordance with applicable regional, national, and local laws and regulations. Local regulations may be more stringent than regional or national requirements and must be complied with.

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### 14. TRANSPORT INFORMATION

#### ADR/RID

UN No:	1202
UN Proper Shipping Name:	GAS OIL, DIESEL FUEL, FUEL OIL LIGHT
Transport Hazard Class:	3
Packing group:	III
Environmental Hazard:	Yes

#### Land transport

#### ADN

UN No:	1202
UN Proper Shipping Name:	GAS OIL, DIESEL FUEL, FUEL OIL LIGHT
Transport Hazard Class:	3
Packing group:	III
Environmental Hazard:	Yes

#### Inland waterways transport

#### IMDG

UN No:	1202
UN Proper Shipping Name:	GAS OIL, DIESEL FUEL, FUEL OIL LIGHT
Transport Hazard Class:	3
Packing group:	III
Environmental Hazard:	Yes

#### Sea transport

#### IATA

UN No:	1202
UN Proper Shipping Name:	GAS OIL, DIESEL FUEL, FUEL OIL LIGHT
Transport Hazard Class:	3
Packing group:	III
Environmental Hazard:	Yes

#### Air transport

#### Sea (Annex II of MARPOL 73/78 and the IBC code)

Pollution Category	Not applicable.
Ship Type	Not applicable.
Product Name	Not applicable.
Special Precaution	Not applicable.

**Additional Information:** MARPOL Annex I rules apply for bulk shipments by sea.

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### 15. REGULATORY INFORMATION

The regulatory information is not intended to be comprehensive. Other regulations may apply to this material.

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

EU Regulation (EC) No 1907/2006 (REACH).  
EU Regulation (EC) No 1272/2008 Classification, labelling and packaging of chemical substances and mixtures (CLP).

#### 15.2 Chemical Safety Assessment

A Chemical Safety Assessment was performed for this substance.

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### 16. OTHER INFORMATION

#### CLP Hazard Statements

H226: Flammable liquid and vapor.  
H304: May be fatal if swallowed and enters airways.  
H315: Causes skin irritation.  
H332: Harmful if inhaled.  
H351: Suspected of causing cancer.  
H373: May cause damage to organs through prolonged or repeated exposure.  
H411: Toxic to aquatic life with long lasting effects.

#### CLP Precautionary statements

P201: Obtain special instructions before use  
P202: Do not handle until all safety precautions have been read and understood.  
P210: Keep away from heat/sparks/open flames/hot surfaces - No smoking  
P233: Keep container tightly closed  
P240: Ground/bond container and receiving equipment  
P241: Use explosion-proof electrical/ventilation/ lightning equipment  
P242: Use only non-sparing tools  
P243: Take precautionary measures against static discharge  
P260: Do not breathe dust/fume/gas/vapours/spray  
P264: Wash hands thoroughly after handling  
P270: Do not eat, drink or smoke when using this product  
P271: Use only outdoors or in a well-ventilated area.  
P273: Avoid release to the environment.  
P280: Wear protective gloves/clothing/eye protection  
P301+P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician  
P302+P352: IF ON SKIN: Wash with plenty of soap and water  
P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

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P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing  
P308+P313: IF exposed or concerned: Get medical advice/attention  
P312: Call a POISON CENTER or doctor/physician if you feel unwell  
P330: Rinse mouth  
P331: Do NOT induce vomiting  
P332+P313: If skin irritation occurs: Get medical advice/attention  
P362+P364: Take off contaminated clothes and wash them before reuse.  
P370+P378: In case of fire: Use water spray or foam for extinction  
P391: Collect spillage  
P403+P233: Store in a well-ventilated place. Keep container tightly closed  
P405: Store locked up  
P501: Dispose of contents/container in accordance with local/regional/national/international regulation

**Recommended Restrictions on Use (Advice Against:**

This product must not be used in applications other than those recommended in Section 1, without first seeking the advice of the supplier.

**Additional Information:**

This document contains important information to ensure the safe storage, handling and use of this product. The information in this document should be brought to the attention of the person in your organisation responsible for advising on safety matters.

**Further Information**

This product is intended for use in closed systems only.

**MSDS Version Number:**

2.1

**MSDS Effective Date:**

12.10.2015

**MSDS Regulation Disclaimer:**

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product

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