Commodity Transportation Data Sheet

1 – PRODUCT AND COMPANY IDENTIFICATION

1.1. Product name, trade name and synonyms
Marine Fuels, Marine Fuel Oil, Marine Gas Oil, Marine Diesel Oil
Residual Fuel Oil, HFO, MDO, MGO, Bunker oil, Marine bunker oil.

1.2. Relevant identified uses of the substance
Fuel for use in marine diesel engines, boilers, furnaces and other combustion equipment.

1.3. Detail of the supplier & testing company
Please refer to the supplier stated on the safety data sheet. This product is to be tested at an Inspectorate laboratory. Company name: Inspectorate International Limited, 2 Perry Road, Witham, Essex, United Kingdom (Registration Number 638315).

1.4. Emergency telephone number
+1 703-527-3887

2 – HAZARDS IDENTIFICATION

2.1. Classification of the substance
May be fatal if swallowed and enter airways. Causes skin irritation. May Cause cancer. May cause damage to organs through prolonged and/or repeated exposure.
DPD Classification: Xn; R20, Xi; R38, Carc. Cat. 1 and 3; R40, N; R45, Xn;
R48/21, N; R51/53, Xn; R63, Xn; R65
CLP Classification: Asp. Tox. 1; H304, Skin Irrit. 2; H315, Acute Tox. 4;
H332, Carc. 1B; H350, STOT RE 2; H350, Repr. 2; H361d, STOT RE 2.

2.2. Label elements

<table>
<thead>
<tr>
<th>Hazard Phrases</th>
<th>Precautionary Phrases</th>
</tr>
</thead>
<tbody>
<tr>
<td>EUH066 Repeated exposure may cause skin dryness or cracking.</td>
<td>P201 Obtain special instructions before use.</td>
</tr>
<tr>
<td>H304 May be fatal if swallowed and enter airways.</td>
<td>P260 Do not breathe dust/fume/gas/mist/vapour/spray.</td>
</tr>
<tr>
<td>H315 Causes skin irritation.</td>
<td>P301/310 IF SWALLOWED: Immediately call a POISON CENTER or doctor.</td>
</tr>
<tr>
<td>H332 Harmful if inhaled.</td>
<td>P331 Do not induce vomiting since vomiting may cause additional complications.</td>
</tr>
<tr>
<td>H350 May cause cancer.</td>
<td>P501 Dispose of contents/container in accordance with local regulations.</td>
</tr>
<tr>
<td>H361d Suspected of damaging the unborn child.</td>
<td>P280 Wear protective gloves/eye protection.</td>
</tr>
<tr>
<td>H373 May cause damage to organs through prolonged or repeated exposure.</td>
<td>P308/313 If exposed or concerned: Get medical advice/attention.</td>
</tr>
<tr>
<td>H400 Very toxic to aquatic life.</td>
<td>P332/313 If skin irritation occurs: Get medical advice/attention.</td>
</tr>
<tr>
<td>H410 Very toxic to aquatic life with long lasting effects.</td>
<td></td>
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</tbody>
</table>

3 – COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Mixtures
liquid product of paraffinic-, naphthenic- and aromatic- hydrocarbons.
Composition is very complex and can vary due to blend proportions of different refinery streams. Further variations are due to different crude
sources used in refining. Components may contain sulphur derivatives and organic acids.

3.2. CAS No. 68333-25-5; 92045-29-9; 68476-33-5; 68334-30-5.

4 – FIRST AID MEASURES

4.1. Description of first aid measures

Eye contact – Immediately flush eyes with water for more than 10 minutes and make sure eye lids are open throughout the flushing process. Seek medical advice.

Skin contact – Remove contaminated clothing. Wash skin with plenty of water and soap. Seek medical advice.

Inhalation – Seek fresh air immediately. Seek medical advice if breathing difficulties continues.

Ingestion – Wash out mouth thoroughly and drink 2 glasses of water in small sips. Do not induce vomiting. Immediately call a local POISON CENTER or a doctor.

5 – FIREFIGHTING MEASURES

5.1. Suitable extinguishing media

Use water fog/mist, foam, dry chemical or carbon dioxide (CO2).

5.2. Unsuitable extinguishing media

Do not use water stream, as it may spread fire.

5.3. Advice for firefighters

Wear Self-Contained Breathing Apparatus (SCBA) with a chemical protection suit. Move containers from danger if it can be done without risk. Avoid inhalation of vapour and flue gases.

6 – ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Eliminate all sources of ignition in vicinity of spilled material. Keep distance from source. Stop leak if this can be done without risk. Wear gloves. Keep unnecessary personal away. Provide good ventilation.

6.2. Environmental precautions

Stop leak if this can be done without risk. Prevent spillage from entering drains and/or surface water. Notify proper authorities in case of contamination of soil or aquatic environment or discharge to drains.

6.3. Methods and material for containment and cleaning up

Contain and absorb spill with sand or other absorbent material and transfer to suitable waste containers. Wipe up minor spills with a cloth.

6.4. Reference to other sections

See section 8 and 13.

7 – HANDLING AND STORAGE

7.1. Precautions for safe handling

Avoid all personal contact with the product. Do not breathe vapour or fumes. Wash hands thoroughly after handling. Ensure that all precautions are taken to ensure minimizing spillage and overflows.

7.2. Conditions for safe storage, including any incompatibilities

Store safely, out of reach of children and away from food, medicine etc. keep in tightly closed original packing.

8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

No applicable occupational exposure limit exists for this material or its components. Consult local authorities for appropriate values.
8.2. Exposure controls

Wear the personal protective equipment specified below.

**Respiratory protection** – Ensure that sufficient ventilation and mind the wind direction. In the event if excessive amount of H2S is measured above 10 ppm a respiratory protection is required and most conform to one of the following standards: EN 136/140/145.

**Hand protection** – Gloves of nitrile rubber, approved by EN 374, is recommended. Change gloves often.

**Eye protection** – Wear safety goggles approved by EN 166 if there is a risk of eye splash.

9 – PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and Chemical properties

**State** – Liquid.

**Odour** – Characteristic hydrocarbon.

**Flash Point** – Min. 60.5°C (141°F) (Pensky-Martens Closed Cup). Note - this is a Marine Fuel and it is also a requirement that the Flash Point also meets the SOLAS, Chapter II-1, Reg 4 requirements (which is also min. 60°C).

**Density @15°C** – 820 to 1020 kg/m³.

**Kinematic Viscosity** – 2 to 850 mm²/s.

**Initial Boiling Point/Range** – 150 to 600°C (302 to 1112°F).

10 – STABILITY AND REACTIVITY

10.1. Reactivity

This material is not expected to react.

10.2. Chemical stability

Stable under normal conditions of storage and use.

10.3. Possibility of hazardous reactions

None known and under normal storage conditions, hazardous reactions will not occur.

10.4. Conditions to avoid

Avoid heat, sparks, open flames and other ignition sources.

10.5. Incompatible materials

Strong oxidising agents.

10.6. Hazardous decomposition products

Product decomposes in fire conditions or when heated to high temperatures, and inflammable and toxic gases may be released.

11 – TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

**Likely routes of exposure** – Skin and eye contact are the primary routes of exposure. Exposure may also occur through inhalation or following accidental ingestion.

**Acute Oral Toxicity** – The product does not have to be classified.

**Acute Dermal Toxicity** – The product does not have to be classified.

**Acute Inhalation Toxicity** – Harmful by inhalation especially when hydrogen sulhide is present.
Skin corrosion/irritation – Expected to be slightly irritating and may cause reddening. Contact with hot material can cause thermal burns which may result in permanent skin damage.

Serious eye damage/irritation – Expected to be slightly irritating. Contact with hot material may cause eye burns and/or blindness.

Respiratory or skin sensitisation - The product does not have to be classified.

Aspiration Hazard – Note considered an aspiration hazard but may cause chemical pneumonia if ingested or vomited.

Germ cell mutagenicity - The product does not have to be classified.

Carcinogenicity – May cause cancer

Reproductive toxicity – Suspected of damaging the unborn child.

STOT single exposure - The product does not have to be classified, but it is not expected to be a hazard

STOT repeated exposure – May cause damage to organs through prolonged or repeated exposure.

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12 – ECOLOGICAL INFORMATION

12.1. Toxicity
Very toxic to aquatic life with long lasting effects.

12.2. Persistence and degradability
Contains substances which is not expected to be readily biodegradable. May cause long-term adverse effects in the aquatic environment.

12.3. Bioaccumulative potential
No data available.

12.4. Mobility in soil
No data available.

12.5. Result of PBT and vPvB assessment
No data available.

12.6. Other adverse effects
Spills may form a film on water surfaces causing physical damage to organisms. Oxygen transfer could also be impaired.

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13 – DISPOSAL CONSIDERATIONS

13.1. Waste Treatment methods
Uncleaned packing and material is to be disposed of via an approved local waste-removal scheme. Empty and clean packing should be disposed of for recycling.

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14 – TRANSPORT INFORMATION

14.1. UN Number
Not Applicable. Product not classified as hazardous goods.

14.2. UN Proper Shipping Name
Not Applicable. Product not classified as hazardous goods.

14.3. Transport Hazard Class
Not Applicable. Product not classified as hazardous goods.

14.4. Packing Group
Not Applicable. Product not classified as hazardous goods.

Additional Information
NOT CLASSIFIED AS HAZARDOUS FOR TRANSPORT (ADR, RID, UN, IMO, IATA/ICAO)
### 15 – REGULATORY INFORMATION

<table>
<thead>
<tr>
<th>15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture</th>
<th>Carcinogenic category 2. Special care should be applied to employees. Other regulations may apply to this material.</th>
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</thead>
<tbody>
<tr>
<td>15.2. Chemical safety assessment</td>
<td>Chemical safety assessment has not been performed.</td>
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### 16 – OTHER INFORMATION

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<tr>
<th>Version Number</th>
<th>1.0</th>
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</tr>
<tr>
<td>Serial Range</td>
<td>VF-CTDS-072015</td>
</tr>
<tr>
<td>Enterprise</td>
<td>Bureau Veritas Commodities, Norway</td>
</tr>
<tr>
<td>Address</td>
<td>Grev Wedels plass 5, 0151 Oslo, Norway</td>
</tr>
<tr>
<td>Email</td>
<td><a href="mailto:Verifuel@bureauveritas.com">Verifuel@bureauveritas.com</a></td>
</tr>
<tr>
<td>Tel</td>
<td>+4722402408</td>
</tr>
</tbody>
</table>

**Disclaimer**

This information is based on our current knowledge and is intended to describe the product/material for the purpose of transporting sample bottles containing this product to one of our VeriFuel labs. It should not therefore be construed as guaranteeing any specific property of the product.