Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 18.07.2018 Version number 2 Revision: 22.05.2018

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

1.1 Product identifier
Product name: 5% Biodiesel/95% High Cetane Diesel Fuel, v/v

1.2 Relevant identified uses of the substance or mixture and uses advised against
No further relevant information available.

1.3 Details of the supplier of the safety data sheet
Manufacturer/Supplier:
LGC Limited
Queens Road
Teddington
Middlesex TW11 0LY
UNITED KINGDOM

Further information obtainable from:
Product safety department
eMail: sds-request@lgcgroup.com

1.4 Emergency telephone number: +44 (0) 20 8943 7000 (Monday - Friday : 8am - 5pm)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008

GHS02 flame

Flam. Liq. 3 H226 Flammable liquid and vapour.

GHS08 health hazard

Carc. 2 H351 Suspected of causing cancer.
STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.
Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.

GHS09 environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.

GHS07

Acute Tox. 4 H332 Harmful if inhaled.
Skin Irrit. 2 H315 Causes skin irritation.

(Contd. on page 2)
2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

Hazard pictograms

- GHS02
- GHS07
- GHS08
- GHS09

Signal word: Danger

Hazard-determining components of labelling:

- Gasoil : fuels, diesel, nr 2

Hazard statements:

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

Precautionary statements:

- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.
- P321 Specific treatment (see on this label).
- P331 Do NOT induce vomiting.
- P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P362+P364 Take off contaminated clothing and wash it before reuse.
- P405 Store locked up.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3 Other hazards

Results of PBT and vPvB assessment:

- PBT: Not applicable.
- vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

3.2 Chemical characterisation: Mixtures

Description: Mixture: consisting of the following components.

Dangerous components:

- CAS: 68476-34-6
- EINECS: 270-676-1
- RTECS: LS9142500

Gasoil : fuels, diesel, nr 2

Flam. Liq. 3, H226; Flam. Sol. 3, H226; Carc. 2, H351; STOT RE 2, H373; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; Acute Tox. 4, H332; Skin Irrit. 2, H315

50 - 95%
SECTION 4: First aid measures

4.1 Description of first aid measures

General information:
Symptoms of poisoning may occur even after several hours; therefore medical observation for at least 48 hours after the accident is recommended.

After inhalation:
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
In case of unconsciousness place patient in recovery position for transport.

After skin contact:
Immediately wash with water and soap and rinse thoroughly.
If skin irritation continues, consult a doctor.

After eye contact:
Rinse opened eye for several minutes under running water.

After swallowing:
Rinse mouth. Do not induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed
No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed
No further relevant information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing agents: CO2, sand, extinguishing powder. Do not use water.

For safety reasons unsuitable extinguishing agents: Water with full jet

5.2 Special hazards arising from the substance or mixture
Formation of toxic gases is possible during heating or in case of fire.

5.3 Advice for firefighters

Protective equipment:
Mouth respiratory protective device.
Wear self-contained respiratory protective device.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Wear protective equipment. Keep unprotected persons away.

6.2 Environmental precautions:
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/surface or ground water.

6.3 Methods and material for containment and cleaning up:
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

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Dispose of contaminated material as waste according to item 13.
Ensure adequate ventilation.
Do not flush with water or aqueous cleansing agents

6.4 Reference to other sections
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Ensure good ventilation/extraction at the workplace.
Store in cool, dry place in tightly closed receptacles.
Prevent formation of aerosols.

Information about fire - and explosion protection:
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.

7.2 Conditions for safe storage, including any incompatibilities
Storage:
Requirements to be met by storerooms and receptacles:
Please refer to the manufacturer's certificate for specific storage and transport temperature conditions.
Store only in the original receptacle.
Keep container in a well-ventilated place. Keep away from sources of ignition and heat.

Information about storage in one common storage facility: Store away from foodstuffs.

Further information about storage conditions: Keep container tightly sealed.

7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

Additional information about design of technical facilities: No further data; see item 7.

8.1 Control parameters
Ingredients with limit values that require monitoring at the workplace:
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

Additional information: Lists used were valid at the time of SDS preparation.

8.2 Exposure controls
Personal protective equipment:
General protective and hygienic measures:
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Store protective clothing separately.
Avoid contact with the skin.
Avoid contact with the eyes and skin.

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Product name: 5% Biodiesel/95% High Cetane Diesel Fuel, v/v

- Respiratory protection:
  In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
  Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

- Protection of hands:
  The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
  Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
  The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374.

  - Material of gloves
    Nitrile rubber, NBR
    Fluorocarbon rubber (Viton)
  - Penetration time of glove material
    The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- Eye protection:
  Tightly sealed goggles

SECTION 9: Physical and chemical properties

- 9.1 Information on basic physical and chemical properties
  - General Information
    - Appearance:
      Form: Liquid
      Colour: Yellow
    - Odour: Mineral-oil-like
    - Odour threshold: Not determined.
    - pH-value: Not determined.
  - Change in condition
    - Melting point/freezing point: Not determined.
    - Initial boiling point and boiling range: 150 °C
  - Flash point: 55 °C
**Product name:** 5% Biodiesel/95% High Cetane Diesel Fuel, v/v

<table>
<thead>
<tr>
<th>Property</th>
<th>Value/Detail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Ignition temperature</td>
<td>220 °C</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Product is not self-igniting.</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Product is not explosive. However, formation of explosive air/vapour mixtures is possible.</td>
</tr>
<tr>
<td>Explosion limits</td>
<td></td>
</tr>
<tr>
<td>Lower</td>
<td>0.7 Vol %</td>
</tr>
<tr>
<td>Upper</td>
<td>6.5 Vol %</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Density at 20 °C</td>
<td>0.8 g/cm³</td>
</tr>
<tr>
<td>Relative density</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Vapour density</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Solubility in / Miscibility with water</td>
<td>Not miscible or difficult to mix.</td>
</tr>
<tr>
<td>Partition coefficient n-octanol/water</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Viscosity</td>
<td></td>
</tr>
<tr>
<td>Dynamic</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Kinematic</td>
<td>Not determined.</td>
</tr>
<tr>
<td>9.2 Other information</td>
<td>No further relevant information available.</td>
</tr>
</tbody>
</table>

**SECTION 10: Stability and reactivity**

- **10.1 Reactivity** Stable under normal conditions.
- **10.2 Chemical stability** Stable under normal conditions.
- **Thermal decomposition / conditions to be avoided:** Formation of toxic gases is possible during heating or in case of fire.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** Heat.
- **Sources of ignition**
- **10.5 Incompatible materials**: Strong oxidizing agents.
- **10.6 Hazardous decomposition products**:
  - Formation of toxic gases is possible during heating or in case of fire.

**SECTION 11: Toxicological information**

- **11.1 Information on toxicological effects** May be fatal if swallowed and enters airways.
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Product name: 5% Biodiesel/95% High Cetane Diesel Fuel, v/v

ACUTE TOXICITY
Harmful if inhaled.

PRIMARY IRRITANT EFFECT:

- Skin corrosion/irritation
  Causes skin irritation.
- Serious eye damage/irritation Based on available data, the classification criteria are not met.
- Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)
  - Carc. 2
  - Germ cell mutagenicity Based on available data, the classification criteria are not met.
  - Carcinogenicity
    - Suspected of causing cancer.
  - Reproductive toxicity Based on available data, the classification criteria are not met.
  - STOT-single exposure Based on available data, the classification criteria are not met.
  - STOT-repeated exposure
    - May cause damage to organs through prolonged or repeated exposure.
- Aspiration hazard
  - May be fatal if swallowed and enters airways.

SECTION 12: Ecological information

- Toxicity
  - Aquatic toxicity: No further relevant information available.
  - Persistence and degradability: No further relevant information available.
  - Bioaccumulative potential: No further relevant information available.
  - Mobility in soil: No further relevant information available.
  - Ecotoxicological effects:
    - Remark: Toxic for fish
  - Additional ecological information:
    - General notes:
      Water hazard class 3 (German Regulation) (Self-assessment): extremely hazardous for water
      Do not allow product to reach ground water, water course or sewage system, even in small quantities.
      Danger to drinking water if even extremely small quantities leak into the ground.
      Also poisonous for fish and plankton in water bodies.
      Toxic for aquatic organisms

- Results of PBT and vPvB assessment
  - PBT: Not applicable.
  - vPvB: Not applicable.

- Other adverse effects
  - No further relevant information available.

SECTION 13: Disposal considerations

- Waste treatment methods
  - Recommendation
    Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
## SECTION 14: Transport information

<table>
<thead>
<tr>
<th>14.1 UN-Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADR, IMDG, IATA</td>
</tr>
<tr>
<td>UN1202</td>
</tr>
<tr>
<td>ADR</td>
</tr>
<tr>
<td>1202 DIESEL FUEL, mixture, ENVIRONMENTALLY HAZARDOUS</td>
</tr>
<tr>
<td>IMDG</td>
</tr>
<tr>
<td>DIESEL FUEL, mixture, MARINE POLLUTANT</td>
</tr>
<tr>
<td>IATA</td>
</tr>
<tr>
<td>DIESEL FUEL, mixture</td>
</tr>
</tbody>
</table>

### 14.3 Transport hazard class(es)
- ADR, IMDG
  - Class: 3
  - Label: Flammable liquids.

- IATA
  - Class: 3
  - Label: Flammable liquids.

### 14.4 Packing group
- ADR, IMDG, IATA
  - III

### 14.5 Environmental hazards:
- Product contains environmentally hazardous substances: Gasoil : fuels, diesel, nr 2
- Marine pollutant: Yes
- Special marking (ADR): Symbol (fish and tree)

### 14.6 Special precautions for user
- Warning: Flammable liquids.
- Danger code (Kemler): 30
- EMS Number: F-E-S-E

### 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code
- Not applicable.
SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
  - Directive 2012/18/EU
  - Qualifying quantity (tonnes) for the application of lower-tier requirements 200 t
  - Qualifying quantity (tonnes) for the application of upper-tier requirements 500 t
  - REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3
- 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

The information in this safety data sheet (SDS) has been prepared with due care and is true and accurate to the best of our knowledge. The user must determine the suitability of the information for its particular purpose, ensure compliance with existing laws and regulations, and be aware that other or additional safety or performance considerations may arise when using, handling and/or storing the material. The information in this SDS does not purport to be all inclusive or a guarantee as to the properties of the material supplied, and should be used only as a guide. LGC makes no warranties or representations as to the accuracy and completeness of the information contained herein, shall not be held responsible for the suitability of this information for the user's intended purposes or the consequences of such use, and shall not be liable for any damage or loss, howsoever arising, direct or otherwise.

Abbreviations and acronyms:
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Flam. Liq. 3: Flammable liquids – Category 3
Acute Tox. 4: Acute toxicity – Category 4
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Carc. 2: Carcinogenicity – Category 2
STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2
Asp. Tox. 1: Aspiration hazard – Category 1
Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

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Product name: 5% Biodiesel/95% High Cetane Diesel Fuel, v/v

- Sources