SAFETY DATA SHEET
NEXBTL Renewable Diesel; Neste 100 % NEXBTL -diesel; Neste Green 100 -diesel

1. Identification

Product identifier
Product name: NEXBTL Renewable Diesel; Neste 100 % NEXBTL -diesel; Neste Green 100 -diesel
Product number: ID 15783.

Recommended use of the chemical and restrictions on use
Application: Use as a fuel

Details of the supplier of the safety data sheet
Supplier: Neste Singapore Pte Ltd
1 Tuas Soth Lane, Singapore 637301, SINGAPORE
+65 6223 1222
SDS@neste.com (chemical safety)

Emergency telephone number
National emergency telephone number:
+358-9-471 977, +358-9-4711, Poison Information Centre/HUS, P.O.B 340 (Tukholmankatu 17) 00029 HUS (Helsinki, Finland)

2. Hazard(s) Identification

Classification of the substance or mixture
Physical hazards: Flam. Liq. 4 - H227
Health hazards: Asp. Tox. 1 - H304
Environmental hazards: Not Classified

Label elements
Pictogram

Signal word: Danger

Hazard statements: H227 Combustible liquid.
H304 May be fatal if swallowed and enters airways.

Precautionary statements: P210 Keep away from heat, sparks, open flames and hot surfaces. No smoking.
P301+P310 If swallowed: Immediately call a poison center/doctor.
P331 Do NOT induce vomiting.
P501 Dispose of contents/container in accordance with national regulations.

Contains: Alkanes, C10-20 -branched and linear

Other hazards: Risk of soil and ground water contamination. Repeated exposure may cause skin dryness or cracking.
NEXBTL Renewable Diesel; Neste 100 % NEXBTL -diesel; Neste Green 100 -diesel

3. Composition/information on ingredients

Mixtures

<table>
<thead>
<tr>
<th>Alkanes, C10-20 -branched and linear</th>
<th>ca. 100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS number: 928771-01-1</td>
<td></td>
</tr>
</tbody>
</table>

Classification

Flam. Liq. 4 - H227
Asp. Tox. 1 - H304

The Full Text for all Hazard Statements are Displayed in Section 16.

Other information

Mixture of renewable raw material fuel and additives.,Contains middle distillate-range iso- and n-paraffinic hydrocarbons.,Total aromatics at maximum 1,0 Weight %.,Identity inside the EU: Renewable hydrocarbons (diesel type fraction); REACH Registration Nr: 01-2119450077-42-0001.

4. First-aid measures

Description of first aid measures

Inhalation

Unlikely to be hazardous by inhalation because of the low vapor pressure of the product at ambient temperature. If spray/mist has been inhaled, proceed as follows. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms are severe or persist.

Ingestion

Do not induce vomiting. Get medical attention immediately.

Skin Contact

Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if irritation persists after washing.

Eye contact

Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation persists after washing.

Most important symptoms and effects, both acute and delayed

General information

Repeated exposure may cause skin dryness or cracking. Spray/mists may cause respiratory tract irritation. Entry into the lungs following ingestion or vomiting may cause chemical pneumonitis.

Indication of immediate medical attention and special treatment needed

Notes for the doctor

Treat symptomatically.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

Water spray, foam, dry powder or carbon dioxide.

Unsuitable extinguishing media

Water may be ineffective for extinguishment, unless used under favorable conditions by experienced fire fighters.

Special hazards arising from the substance or mixture

Specific hazards

Combustible liquid. Containers can burst violently or explode when heated, due to excessive pressure build-up.

Hazardous combustion products

Carbon dioxide (CO2). Carbon monoxide (CO).
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Advice for firefighters

Protective actions during firefighting

Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk.

Special protective equipment for firefighters

Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions

Wear adequate protective equipment at all operations.

For emergency responders

Prevent unauthorized access. Eliminate all ignition sources if safe to do so. Take precautionary measures against static discharge.

Environmental precautions

Environmental precautions

Avoid release to the environment. Stop leak if safe to do so. Avoid the spillage or runoff entering drains, sewers or watercourses. Inform the relevant authorities if environmental pollution occurs (sewers, waterways, soil or air). Risk of soil and ground water contamination.

Methods and material for containment and cleaning up

Methods for cleaning up

Immediately start clean-up of the liquid and contaminated soil. Contain spillage with sand, earth or other suitable non-combustible material. Pay attention to the fire and health hazards caused by the product.

Reference to other sections

For personal protection, see Section 8.

7. Handling and storage

Precautions for safe handling

Usage precautions

Avoid heat, flames and other sources of ignition. Take precautionary measures against static discharges. All handling should only take place in well-ventilated areas. Avoid inhalation of vapors and contact with skin and eyes. Use personal protective equipment and/or local ventilation when needed. Do not eat, drink or smoke when using this product. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site. During tank operations follow special instructions (risk of oxygen displacement and hydrocarbons).

Conditions for safe storage, including any incompatibilities

Storage precautions

Flammable liquid storage. Store in accordance with local regulations. Store in a demarcated bunded area to prevent release to drains and/or watercourses. Take precautions against leakage by constructing collecting pools and sewerage systems as well as by surfacing the loading and unloading stations. Only store in correctly labeled containers. Use containers made of the following materials: Carbon steel. Stainless steel.

Specific end use(s)

Not known.
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8. Exposure Controls/personal protection

**Ingredient comments**
The individual limit values can be applied for the hydrocarbons. Diesel fuel as total hydrocarbons; ACGIH TLV®-TWA (8h) 100 mg/m3 (IFV).

**Exposure controls**

**Appropriate engineering controls**
All handling should only take place in well-ventilated areas. Use personal protective equipment and/or local ventilation when needed. Handle in accordance with good industrial hygiene and safety practice. During tank operations follow special instructions (risk of oxygen displacement and hydrocarbons).

**Eye/face protection**
Tight-fitting safety glasses.

**Hand protection**
Wear protective gloves. It is recommended that gloves are made of the following material: Nitrile rubber. Neoprene. Polyvinyl chloride (PVC). The selected gloves should have a breakthrough time of at least 4 hours. Protection class 5. Change protective gloves regularly.

**Other skin and body protection**
Wear suitable protective clothing as protection against splashing or contamination. Wear anti-static protective clothing if there is a risk of ignition from static electricity.

**Respiratory protection**
Filter device/half mask Combination filter, type A2/P2. Filter device could be used maximum 2 hours at a time. Filter devices must not be used in conditions where the oxygen level is low (< 19 vol.-%). At high concentrations a breathing apparatus must be used (self-contained or fresh air hose breathing apparatus). Filter must be changed often enough.

**Environmental exposure controls**
Take precautions against leakage by constructing collecting pools and sewerage systems as well as by surfacing the loading and unloading stations.

9. Physical and Chemical Properties

**Information on basic physical and chemical properties**

**Appearance**
Liquid.

**Color**
Clear.

**Odor**
Mild.

**Odor threshold**
-

**pH**
-

**Melting point**
Pour point < -20°C @ 1013 hPa (BS4633, EC A1)

**Initial boiling point and range**
180-320°C (EN ISO 3405)

**Flash point**
> 61°C (EN ISO 2719, EC A9)

**Upper/lower flammability or explosive limits**
-

**Vapour pressure**
0,087 kPa @ 25°C (EC A4)

**Vapour density**
-

**Relative density**
0,77 - 0,79 @ 15/4°C (EN ISO 12185, EC A3)

**Solubility(ies)**
Insoluble in water. ~ 0,075 mg/l water @ 25°C (calculated) Soluble in the following materials: Methanol. Hydrocarbons.

**Partition coefficient**
log Kow: > 6,5 (EC A8)

**Auto-ignition temperature**
204°C (EC A15)

**Decomposition Temperature**
-
# NEXBTL Renewable Diesel; Neste 100 % NEXBTL -diesel; Neste Green 100 -diesel

## Viscosity
Kinematic viscosity 4.0 mm²/s @ 20°C 2.6 mm²/s @ 40°C (OECD 114) Dynamic viscosity ≤ 5 mPa s @ 20°C

## Explosive properties
Not considered to be explosive. (EC A14)

## Oxidising properties
Does not meet the criteria for classification as oxidizing.

## Other information
Not known.

### 10. Stability and reactivity

<table>
<thead>
<tr>
<th>Reactivity</th>
<th>There are no known reactivity hazards associated with this product.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stability</td>
<td>Stable at normal ambient temperatures and when used as recommended.</td>
</tr>
<tr>
<td>Possibility of hazardous reactions</td>
<td>No potentially hazardous reactions known.</td>
</tr>
<tr>
<td>Conditions to avoid</td>
<td>Keep away from heat, sparks and open flame.</td>
</tr>
<tr>
<td>Materials to avoid</td>
<td>Oxidizing agents.</td>
</tr>
<tr>
<td>Hazardous decomposition products</td>
<td>Does not decompose when used and stored as recommended.</td>
</tr>
</tbody>
</table>

### 11. Toxicological information

#### Information on toxicological effects

<table>
<thead>
<tr>
<th>Toxicological effects</th>
<th>Based on available data the classification criteria are not met.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin corrosion/irritation</td>
<td>Based on available data the classification criteria are not met. (EC B4). Repeated exposure may cause skin dryness or cracking. The product irritates mucous membranes and may cause abdominal discomfort if swallowed. May cause respiratory system irritation.</td>
</tr>
<tr>
<td>Skin sensitization</td>
<td>Based on available data the classification criteria are not met. (EC B6)</td>
</tr>
<tr>
<td>Germ cell mutagenicity</td>
<td>Based on available data the classification criteria are not met. (EC B10, B13/14 &amp; B17).</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>Based on available data the classification criteria are not met.</td>
</tr>
<tr>
<td>IARC carcinogenicity</td>
<td>Not listed.</td>
</tr>
<tr>
<td>NTP carcinogenicity</td>
<td>Not listed.</td>
</tr>
<tr>
<td>OSHA Carcinogenicity</td>
<td>Not listed.</td>
</tr>
<tr>
<td>Reproductive toxicity</td>
<td>Based on available data the classification criteria are not met. (OECD 416)</td>
</tr>
<tr>
<td>Reproductive toxicity - fertility</td>
<td>Based on available data the classification criteria are not met.</td>
</tr>
<tr>
<td>Specific target organ toxicity - single exposure</td>
<td>Not classified as a specific target organ toxicant after a single exposure.</td>
</tr>
<tr>
<td>STOT - single exposure</td>
<td>Not classified as a specific target organ toxicant after a single exposure.</td>
</tr>
</tbody>
</table>
NEXBTL Renewable Diesel; Neste 100 % NEXBTL -diesel; Neste Green 100 -diesel

Specific target organ toxicity - repeated exposure

STOT - repeated exposure  Based on available data the classification criteria are not met. (OECD 408)

Aspiration hazard

Aspiration hazard  May be fatal if swallowed and enters airways. Entry into the lungs following ingestion or vomiting may cause chemical pneumonitis.

Route of entry  Inhalation Ingestion Skin and/or eye contact

Toxicological information on ingredients.

Alkanes, C10-20 -branched and linear

<table>
<thead>
<tr>
<th>Acute toxicity - oral</th>
<th>Notes (oral LD₅₀)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>LD₅₀ &gt;2000 mg/kg, Oral, Rat (EC B1 tris)</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Acute toxicity - dermal</th>
<th>Notes (dermal LD₅₀)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>LD₅₀ &gt; 2000 mg/kg, Dermal, Rat (EC B3)</td>
</tr>
</tbody>
</table>

12. Ecological Information

Toxicity

Toxicity  Based on available data the classification criteria are not met.

Ecological information on ingredients.

Alkanes, C10-20 -branched and linear

<table>
<thead>
<tr>
<th>Acute toxicity - fish</th>
<th>LL₅₀, 96 hours: &gt; 1000 mg/l, Fish</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>WAF (OECD 203)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Acute toxicity - aquatic invertebrates</th>
<th>EL₅₀, 48 hours: &gt; 100 mg/l,</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>WAF (OECD 202)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Acute toxicity - aquatic plants</th>
<th>EL₅₀, 72 hours: &gt; 100 mg/l, Algae</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>WAF (OECD 201)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Acute toxicity - microorganisms</th>
<th>EC₅₀, 30 minutes: &gt; 1000 mg/l, Micro-organisms (wastewater sludge)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>EC₅₀, 3 hours: &gt; 1000 mg/l, Micro-organisms (wastewater sludge)</td>
</tr>
<tr>
<td></td>
<td>(OECD 209)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chronic toxicity - aquatic invertebrates</th>
<th>NOEC, 21 days: 1 mg/l,</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>LOEC, 21 days: 3,2 mg/l,</td>
</tr>
<tr>
<td></td>
<td>WAF (OECD 211)</td>
</tr>
<tr>
<td></td>
<td>NOEC, 10 days: 373 mg/kg, Sediment organisms</td>
</tr>
<tr>
<td></td>
<td>LOEC, 10 days: 1165 mg/kg, Sediment organisms</td>
</tr>
<tr>
<td></td>
<td>LC₅₀, 10 days: 1200 mg/kg, Sediment organisms</td>
</tr>
</tbody>
</table>

Persistence and degradability

Stability (hydrolysis)  No significant reaction in water.

Biodegradation  Rapidly degradable  (OECD 301B).
NEXBTL Renewable Diesel; Neste 100 % NEXBTL -diesel; Neste Green 100 -diesel

Bioaccumulative potential
Bio-Accumulative Potential  Possibly bioaccumulative.
Partition coefficient  log Kow: > 6.5 (EC A8)
Mobility in soil
Mobility  Evaporates slowly. The product has poor water-solubility. The product contains substances which are bound to particulate matter and are retained in soil. Log Koc > 5.6 (EC C19).

Results of PBT and vPvB assessment
Results of PBT and vPvB assessment  This product does not contain any substances classified as PBT or vPvB.

Other adverse effects
Other adverse effects  Not known.

13. Disposal considerations

Waste treatment methods
Disposal methods  Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. When handling waste, the safety precautions applying to handling of the product should be considered. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Product residues retained in emptied containers can be hazardous. Waste packaging should be collected for reuse or recycling.

14. Transport information

UN Number
UN No. (DOT)  1202
UN No. (IMDG)  Not classified under IMDG.

UN proper shipping name
Proper shipping name (DOT)  UN 1202 DIESEL FUEL

Packing group
DOT pack group  III

Environmental hazards
Environmentally Hazardous Substance
No.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code  Transported by ship as bulk: Product name: Alkanes, C10-C26 linear and branched, (Flashpoint >60 deg.C) (NExBTL Renewable Diesel). Pollution category: Cat Y Ship type: 3

15. Regulatory information

US State Regulations
California Proposition 65 Carcinogens and Reproductive Toxins  Not listed.
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16. Other information

Abbreviations and acronyms used in the safety data sheet
ACGIH = American Conference of Governmental Industrial Hygienists
IARC = International Agency for Research on Cancer
NTP = National Toxicology Program
OSHA = Occupational Safety and Health Administration
TLV = Threshold Limit Value
TWA = Time-Weighted Average
WAF = Water Accommodated Fraction

Key literature references and sources for data

Revision comments
The entire document has been updated according to UN GHS. Revised classification.

Revision date 3/2/2016
Revision 3.0
SDS No. 5623

Hazard statements in full
H227 Combustible liquid.
H304 May be fatal if swallowed and enters airways.

NFPA - health hazard 0
NFPA - flammability hazard 2
NFPA - instability hazard 0
NFPA - special hazard -
ACA HMIS Health rating. 2
ACA HMIS Flammability rating. 2
ACA HMIS Physical hazard rating. 0

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