SAFETY DATA SHEET

HIBITANE 2

Section: 1. PRODUCT AND COMPANY IDENTIFICATION

Product name: HIBITANE 2
Other means of identification: Not applicable.
Recommended use: Teat dip
Product dilution information: 9.0% - 9.0%

Company: Ecolab New Zealand
2 Daniel Place
Te Rapa, Hamilton New Zealand
+64 7 958 2319

Emergency telephone number: 0800 243 622 (0800 CHEMCALL)
+64 7 958 2372 (International)

Issuing date: 28.07.2020

Section: 2. HAZARDS IDENTIFICATION

HSNO Hazard classification

Product AS SOLD
Serious eye damage: 8.3 A
Aquatic toxicity (Acute or Chronic): 9.1 A
Acute toxicity: 6.1 E
Aquatic toxicity (Acute or Chronic): 9.1 B

Product AT USE DILUTION
Aquatic toxicity (Acute or Chronic): 9.1 B

GHS Label element

Product AS SOLD
Hazard pictograms:

Signal Word: Danger

Hazard Statements: Causes serious eye damage.
May be harmful if inhaled.
Very toxic to aquatic life.
Toxic to aquatic life with long lasting effects.

Precautionary Statements:
Prevention:
Wear protective gloves/ eye protection/ face protection. Avoid release to the environment.
Response:
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician. IF
INHALED: Call a POISON CENTER or doctor/physician if you feel unwell. Collect spillage.

**Disposal:**
Dispose of contents/container to an approved waste disposal plant.

### Product AT USE DILUTION

| Hazard pictograms | : |

| Hazard Statements | : Toxic to aquatic life with long lasting effects. |

### Product AS SOLD

**Other hazards**: None known.

### Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Product AS SOLD

**Pure substance/mixture**: Mixture

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No.</th>
<th>Concentration: (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>glycerin</td>
<td>56-81-5</td>
<td>5 - 10</td>
</tr>
<tr>
<td>Chlorhexidine gluconate</td>
<td>18472-51-0</td>
<td>5 - 10</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No.</th>
<th>Concentration: (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chlorhexidine gluconate</td>
<td>18472-51-0</td>
<td>0.1 - 1</td>
</tr>
</tbody>
</table>

### Section: 4. FIRST AID MEASURES

#### Product AS SOLD

In case of eye contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.

In case of skin contact: Rinse with plenty of water.

If swallowed: Rinse mouth. Get medical attention if symptoms occur.

If inhaled: Remove to fresh air. Treat symptomatically. Get medical attention if symptoms occur.

Protection of first-aiders: If potential for exposure exists refer to Section 8 for specific personal protective equipment.

Notes to physician: Treat symptomatically.

Most important symptoms and effects, both acute and delayed: See Section 11 for more detailed information on health effects and symptoms.
SAFETY DATA SHEET

HIBITANE 2

**Product AT USE DILUTION**

In case of eye contact: Rinse with plenty of water.

In case of skin contact: Rinse with plenty of water.

If swallowed: Rinse mouth. Get medical attention if symptoms occur.

If inhaled: Get medical attention if symptoms occur.

**Section: 5. FIREFIGHTING MEASURES**

**Product AS SOLD**

Suitable extinguishing media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media: None known.

Specific hazards during firefighting: Not flammable or combustible.

Hazardous combustion products: Decomposition products may include the following materials:
- Carbon oxides
- Nitrogen oxides (NOx)
- Halogenated compounds

Special protective equipment for firefighters: Use personal protective equipment.

Specific extinguishing methods: Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire and/or explosion do not breathe fumes.

Hazchem Code: ●3Z

**Section: 6. ACCIDENTAL RELEASE MEASURES**

**Product AS SOLD**

Personal precautions, protective equipment and emergency procedures:
Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid inhalation, ingestion and contact with skin and eyes. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Ensure clean-up is conducted by trained personnel only. Refer to protective measures listed in sections 7 and 8.

Environmental precautions:
Do not allow contact with soil, surface or ground water.

Methods and materials for containment and cleaning up:
Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway.

**Product AT USE DILUTION**

Personal precautions, protective equipment and emergency procedures:
Ensure clean-up is conducted by trained personnel only. Refer to
protective measures listed in sections 7 and 8.

Environmental precautions: Do not allow contact with soil, surface or ground water.

Methods and materials for containment and cleaning up: Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway.

Section: 7. HANDLING AND STORAGE

Product AS SOLD
Advice on safe handling: Do not breathe dust/fume/gas/mist/vapours/spray. Wash hands thoroughly after handling. Do not get in eyes, on skin, or on clothing. In case of mechanical malfunction, or if in contact with unknown dilution of product, wear full Personal Protective Equipment (PPE).


Storage temperature: 5 °C to 40 °C

Product AT USE DILUTION
Advice on safe handling: Wash hands thoroughly after handling. In case of mechanical malfunction, or if in contact with unknown dilution of product, wear full Personal Protective Equipment (PPE).


Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Product AS SOLD
Components with workplace control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Form of exposure</th>
<th>Permissible concentration</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>glycerin</td>
<td>56-81-5</td>
<td>WES-TWA (Mist)</td>
<td>10 mg/m3</td>
<td>NZ OEL</td>
</tr>
</tbody>
</table>

Engineering measures: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Personal protective equipment

Eye protection: Safety goggles
Face-shield

Hand protection: Wear the following personal protective equipment:
Standard glove type.
Neoprene gloves
Nitrile
Gloves should be discarded and replaced if there is any indication of
degradation or chemical breakthrough.

Skin protection: No special protective equipment required.

Respiratory protection: Refer to AS/NZS 1715 and AS/NZS 1716 for selection, use and maintenance of respiratory protective equipment as applicable.

Hygiene measures: Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after handling. Provide suitable facilities for quick drenching or flushing of the eyes and body in case of contact or splash hazard.

Engineering measures: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Eye protection: No special protective equipment required.

Hand protection: No special protective equipment required.

Skin protection: No special protective equipment required.

Respiratory protection: Refer to AS/NZS 1715 and AS/NZS 1716 for selection, use and maintenance of respiratory protective equipment as applicable.

Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Product AS SOLD</th>
<th>Product AT USE DILUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>liquid</td>
<td>liquid</td>
</tr>
<tr>
<td>Colour</td>
<td>clear, blue</td>
<td>light blue</td>
</tr>
<tr>
<td>Odour</td>
<td>odourless</td>
<td>odourless</td>
</tr>
<tr>
<td>pH</td>
<td>5.5 - 6.5, (100 %)</td>
<td>5.0 - 7.0</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not applicable.</td>
<td></td>
</tr>
<tr>
<td>Odour Threshold</td>
<td>no data available</td>
<td></td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>no data available</td>
<td></td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>no data available</td>
<td></td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>no data available</td>
<td></td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not applicable.</td>
<td></td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>no data available</td>
<td></td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td>no data available</td>
<td></td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>no data available</td>
<td></td>
</tr>
<tr>
<td>Relative vapour density</td>
<td>no data available</td>
<td></td>
</tr>
<tr>
<td>Relative density</td>
<td>1.02 - 1.04</td>
<td></td>
</tr>
<tr>
<td>Water solubility</td>
<td>no data available</td>
<td></td>
</tr>
<tr>
<td>Solubility in other solvents</td>
<td>no data available</td>
<td></td>
</tr>
<tr>
<td>Partition coefficient: n-</td>
<td>no data available</td>
<td></td>
</tr>
</tbody>
</table>
octanol/water
Auto-ignition temperature  :  no data available
Thermal decomposition     :  no data available
Viscosity, kinematic      :  no data available
Explosive properties      :  no data available
Oxidizing properties      :  no data available
Molecular weight          :  no data available
VOC                      :  no data available

Section: 10. STABILITY AND REACTIVITY

Product AS SOLD
Reactivity                       :  No dangerous reaction known under conditions of normal use.
Chemical stability              :  Stable under normal conditions.
Possibility of hazardous reactions :  No dangerous reaction known under conditions of normal use.
Conditions to avoid             :  None known.
Incompatible materials         :  None known.
Hazardous decomposition products :  In case of fire hazardous decomposition products may be produced such as:
                                   Carbon oxides
                                   nitrogen oxides (NOx)
                                   Halogenated compounds

Section: 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure :  Inhalation, Eye contact, Skin contact

Potential Health Effects

Product AS SOLD
Eyes                             :  Causes serious eye damage.
Skin                             :  Health injuries are not known or expected under normal use.
Ingestion                       :  Health injuries are not known or expected under normal use.
Inhalation                      :  May be harmful if inhaled.
Chronic Exposure                :  Health injuries are not known or expected under normal use.

Product AT USE DILUTION
Eyes                             :  Health injuries are not known or expected under normal use.
Skin                             :  Health injuries are not known or expected under normal use.
Ingestion                       :  Health injuries are not known or expected under normal use.
Inhalation                      :  Health injuries are not known or expected under normal use.
**SAFETY DATA SHEET**

**HIBITANE 2**

<table>
<thead>
<tr>
<th>Chronic Exposure</th>
<th>Health injuries are not known or expected under normal use.</th>
</tr>
</thead>
</table>

**Experience with human exposure**

**Product AS SOLD**

<table>
<thead>
<tr>
<th>Eye contact</th>
<th>Redness, Pain, Corrosion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin contact</td>
<td>No symptoms known or expected.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>No symptoms known or expected.</td>
</tr>
<tr>
<td>Inhalation</td>
<td>Respiratory irritation, Cough</td>
</tr>
</tbody>
</table>

**Product AT USE DILUTION**

<table>
<thead>
<tr>
<th>Eye contact</th>
<th>No symptoms known or expected.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin contact</td>
<td>No symptoms known or expected.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>No symptoms known or expected.</td>
</tr>
<tr>
<td>Inhalation</td>
<td>No symptoms known or expected.</td>
</tr>
</tbody>
</table>

**Toxicity**

**Product AS SOLD**

**Product**

<table>
<thead>
<tr>
<th>Acute oral toxicity</th>
<th>Acute toxicity estimate : &gt; 5,000 mg/kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute inhalation toxicity</td>
<td>no data available</td>
</tr>
<tr>
<td>Acute dermal toxicity</td>
<td>no data available</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>no data available</td>
</tr>
<tr>
<td>Serious eye damage/eye irritation</td>
<td>no data available</td>
</tr>
<tr>
<td>Respiratory or skin sensitization</td>
<td>no data available</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>no data available</td>
</tr>
<tr>
<td>Reproductive effects</td>
<td>no data available</td>
</tr>
<tr>
<td>Germ cell mutagenicity</td>
<td>no data available</td>
</tr>
<tr>
<td>Teratogenicity</td>
<td>no data available</td>
</tr>
<tr>
<td>STOT - single exposure</td>
<td>no data available</td>
</tr>
<tr>
<td>STOT - repeated exposure</td>
<td>no data available</td>
</tr>
<tr>
<td>Aspiration toxicity</td>
<td>no data available</td>
</tr>
</tbody>
</table>

**Components**

<table>
<thead>
<tr>
<th>Acute inhalation toxicity</th>
<th>Chlorhexidine gluconate</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 h LC50 rat: 0.365 mg/l</td>
<td>Test atmosphere: dust/mist</td>
</tr>
</tbody>
</table>

**Components**

<table>
<thead>
<tr>
<th>Acute dermal toxicity</th>
<th>glycerin</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 rabbit: 23,000 mg/kg</td>
<td></td>
</tr>
</tbody>
</table>

Chlorhexidine gluconate
LD50 rabbit: > 2,000 mg/kg
Section: 12. ECOLOGICAL INFORMATION

Product AS SOLD
Ecotoxicity
Environmental Effects: Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.

Product
Toxicity to fish: no data available
Toxicity to daphnia and other aquatic invertebrates: no data available
Toxicity to algae: no data available

Components
Toxicity to fish: glycerin
96 h LC50 Fish: 855 mg/l

Components
Toxicity to daphnia and other aquatic invertebrates: Chlorhexidine gluconate
48 h EC50: 0.06 mg/l

Persistence and degradability
Product AS SOLD
Readily biodegradable.

Bioaccumulative potential
no data available

Mobility in soil
no data available

Other adverse effects
no data available

Section: 13. DISPOSAL CONSIDERATIONS

Product AS SOLD
Disposal methods: The product should not be allowed to enter drains, water courses or the soil. Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of wastes in an approved waste disposal facility.

Disposal considerations: Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers. Dispose of in accordance with local, state, and federal regulations.

Product AT USE DILUTION
Disposal methods: The product should not be allowed to enter drains, water courses or the soil. Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of wastes in an approved waste disposal facility.
Disposal considerations: Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers. Dispose of in accordance with local, state, and federal regulations.

Section: 14. TRANSPORT INFORMATION

Product AS SOLD

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

Land transport (NZ_DG)
UN number: 3082
Description of the goods: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Chlorhexidine digluconate)
Class: 9
Packing group: III
Hazchem Code: ●3Z
Environmentally hazardous: Yes

Sea transport (IMDG/IMO)
UN number: 3082
Description of the goods: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Chlorhexidine digluconate)
Class: 9
Packing group: III
Marine pollutant: Yes

Special precautions for user: None

Section: 15. REGULATORY INFORMATION

Product AS SOLD
HSNO Approval Number: HSR100759
HSNO Group Standard: Veterinary Medicines (Non-dispersive Open System Application) Group Standard 2017

This product is registered pursuant to the Agricultural Compounds and Veterinary Medicines Act. A011222

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

United States TSCA Inventory: All substances listed as active on the TSCA inventory

Canadian Domestic Substances List (DSL): All components of this product are on the Canadian DSL.

Australia, Industrial Chemical (Notification and Assessment) Act: On the inventory, or in compliance with the inventory
New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand:
On the inventory, or in compliance with the inventory

Japan. ENCS - Existing and New Chemical Substances Inventory:
not determined

Korea. Korean Existing Chemicals Inventory (KECI):
On the inventory, or in compliance with the inventory

Philippines Inventory of Chemicals and Chemical Substances (PICCS):
not determined

China Inventory of Existing Chemical Substances:
On the inventory, or in compliance with the inventory

Taiwan Chemical Substance Inventory:
On the inventory, or in compliance with the inventory

Section: 16. OTHER INFORMATION

Issuing date: 28.07.2020
Version: 1.1
Prepared by: Regulatory Affairs

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

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.