SAFETY DATA SHEET
ANTIMICROBIAL FRUIT & VEGETABLE TREATMENT

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : ANTIMICROBIAL FRUIT & VEGETABLE TREATMENT
Other means of identification : Not applicable
Recommended use : Sanitizer
Restrictions on use : Reserved for industrial and professional use.
Product dilution information : 0.58 % - 0.78 %

Company : Ecolab Inc.
1 Ecolab Place
St. Paul, Minnesota USA 55102
1-800-352-5326

Emergency health information : 1-800-328-0026 (US/Canada), 1-651-222-5352 (outside US)
Issuing date : 10/18/2019

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Product AS SOLD
Acute toxicity (Dermal) : Category 4
Eye irritation : Category 2A
Skin sensitization : Category 1

Product AT USE DILUTION
Not a hazardous substance or mixture.

GHS label elements
Product AS SOLD
Hazard pictograms :

Signal Word : Warning

Hazard Statements : Harmful in contact with skin.
May cause an allergic skin reaction.
Causes serious eye irritation.

Precautionary Statements : Prevention:
Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray. Wash skin thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves/ protective clothing/ eye protection/ face protection.
Response:
IF ON SKIN: Wash with plenty of water. Call a POISON CENTER/doctor if you feel unwell. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If skin irritation or rash occurs: Get medical
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advice/attention. If eye irritation persists: Get medical advice/attention. Wash contaminated clothing before reuse.

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

**Product AT USE DILUTION**

<table>
<thead>
<tr>
<th>Precautionary Statements</th>
<th>Chemical name</th>
<th>CAS-No.</th>
<th>Concentration (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prevention</td>
<td>Lactic acid</td>
<td>79-33-4</td>
<td>17.29</td>
</tr>
<tr>
<td></td>
<td>Sodium hydrogen sulfate</td>
<td>7681-38-1</td>
<td>5 - 10</td>
</tr>
<tr>
<td></td>
<td>Dodecylbenzenesulfonic acid, sodium salt</td>
<td>25155-30-0</td>
<td>1.23</td>
</tr>
</tbody>
</table>

**Product AS SOLD**

<table>
<thead>
<tr>
<th>Other hazards</th>
<th>Chemical name</th>
<th>CAS-No.</th>
<th>Concentration (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Lactic acid</td>
<td>79-33-4</td>
<td>0.1349</td>
</tr>
<tr>
<td></td>
<td>Dodecylbenzenesulfonic acid, sodium salt</td>
<td>25155-30-0</td>
<td>0.0096</td>
</tr>
</tbody>
</table>

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

**SECTION 4. FIRST AID MEASURES**

**Product AS SOLD**

<table>
<thead>
<tr>
<th>In case of eye contact</th>
<th>IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.</th>
</tr>
</thead>
<tbody>
<tr>
<td>In case of skin contact</td>
<td>Wash off immediately with plenty of water for at least 15 minutes. Use a mild soap if available. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.</td>
</tr>
<tr>
<td>If swallowed</td>
<td>Rinse mouth. Get medical attention if symptoms occur.</td>
</tr>
<tr>
<td>If inhaled</td>
<td>Remove to fresh air. Treat symptomatically. Get medical attention.</td>
</tr>
<tr>
<td>Protection of first-aiders</td>
<td>If potential for exposure exists refer to Section 8 for specific personal protective equipment.</td>
</tr>
<tr>
<td>Notes to physician</td>
<td>Treat symptomatically.</td>
</tr>
<tr>
<td>Most important symptoms and effects, both acute and delayed</td>
<td>See Section 11 for more detailed information on health effects and symptoms.</td>
</tr>
</tbody>
</table>

**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. FIRE-FIGHTING 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 fire fighting: Not flammable or combustible.
Hazardous combustion products: Decomposition products may include the following materials:
- Carbon oxides
- Sulfur oxides

Special protective equipment for fire-fighters: Use personal protective equipment.
Specific extinguishing methods: 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.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Product AS SOLD
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). Flush away traces with water. 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: Refer to protective measures listed in sections 7 and 8.
Environmental precautions: No special environmental precautions required.
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). Flush away traces with water. For large spills, dike spilled material or otherwise contain
### SECTION 7. HANDLING AND STORAGE

**Product AS SOLD**

**Advice on safe handling**: Do not get in eyes, on skin, or on clothing. Do not breathe dust/ fume/ gas/ mist/ vapors/ spray. Use only with adequate ventilation. Wash hands thoroughly after handling. Do not mix with bleach or other chlorinated products – will cause chlorine gas. In case of mechanical malfunction, or if in contact with unknown dilution of product, wear full Personal Protective Equipment (PPE).

**Conditions for safe storage**: Keep away from strong bases. Keep out of reach of children. Store in suitable labeled containers.

**Storage temperature**: 0 °C to 50 °C

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**Product AT USE DILUTION**

**Advice on safe handling**: Wash hands after handling. In case of mechanical malfunction, or if in contact with unknown dilution of product, wear full Personal Protective Equipment (PPE). For personal protection see section 8.

**Conditions for safe storage**: Keep out of reach of children. Store in suitable labeled containers.

### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Product AS SOLD**

**Ingredients with workplace control parameters**

Contains no substances with occupational exposure limit values.

**Engineering measures**: Effective exhaust ventilation system. Maintain air concentrations below occupational exposure standards.

**Personal protective equipment**

**Eye protection**: Safety glasses with side-shields

**Hand protection**: Wear the following personal protective equipment:

Standard glove type.

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**: When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

**Hygiene measures**: Handle in accordance with good industrial hygiene and safety practice. Wash face, hands and any exposed skin thoroughly after handling.

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**Product AT USE DILUTION**

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

**Personal protective equipment**

**Eye protection**: No special protective equipment required.
Hand protection: No special protective equipment required.
Skin protection: No special protective equipment required.
Respiratory protection: No personal respiratory protective equipment normally required.

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>Color</td>
<td>cloudy, dark green</td>
<td>light green</td>
</tr>
<tr>
<td>Odor</td>
<td>odorless</td>
<td>odorless</td>
</tr>
<tr>
<td>pH</td>
<td>0.5 - 1.0, (100 %)</td>
<td>2.1 - 3.2</td>
</tr>
<tr>
<td>Flash point</td>
<td>closed cup Not applicable</td>
<td></td>
</tr>
<tr>
<td>Odor 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>&gt; 100 °C</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>Vapor pressure</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Relative vapor density</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Relative density</td>
<td>1.069 - 1.135</td>
<td></td>
</tr>
<tr>
<td>Water solubility</td>
<td>soluble</td>
<td></td>
</tr>
<tr>
<td>Solubility in other solvents</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Thermal decomposition</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>907.757 mm2/s (40 °C)</td>
<td></td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>The substance or mixture is not classified as oxidizing.</td>
<td></td>
</tr>
<tr>
<td>Molecular weight</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>VOC</td>
<td>No data available</td>
<td></td>
</tr>
</tbody>
</table>

SECTION 10. STABILITY AND REACTIVITY

Product AS SOLD
Reactivity: No dangerous reaction known under conditions of normal use.
Chemical stability: Stable under normal conditions.
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ANTIMICROBIAL FRUIT & VEGETABLE TREATMENT

Possibility of hazardous reactions: Do not mix with bleach or other chlorinated products – will cause chlorine gas.

Conditions to avoid: None known.

Incompatible materials: Bases
Metals

Hazardous decomposition products: In case of fire hazardous decomposition products may be produced such as:
Carbon oxides
Sulfur oxides

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 irritation.

Skin: Harmful in contact with skin. May cause allergic skin reaction.

Ingestion: Health injuries are not known or expected under normal use.

Inhalation: Health injuries are not known or expected under normal use.

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.

Chronic Exposure: Health injuries are not known or expected under normal use.

Experience with human exposure

Product AS SOLD

Eye contact: Redness, Pain, Irritation

Skin contact: Redness, Irritation, Allergic reactions

Ingestion: No symptoms known or expected.

Inhalation: No information available.

Product AT USE DILUTION

Eye contact: No symptoms known or expected.

Skin contact: No symptoms known or expected.

Ingestion: No symptoms known or expected.
Inhalation: No symptoms known or expected.

Toxicity

**Product AS SOLD**

**Acute oral toxicity**: No data available

**Acute inhalation toxicity**: No data available

**Acute dermal toxicity**: Acute toxicity estimate: > 1,000 mg/kg

**Skin corrosion/irritation**: No data available

**Serious eye damage/eye irritation**: No data available

**Respiratory or skin sensitization**: No data available

**Carcinogenicity**: No data available

**Reproductive effects**: No data available

**Germ cell mutagenicity**: No data available

**Teratogenicity**: No data available

**STOT-single exposure**: No data available

**STOT-repeated exposure**: No data available

**Aspiration toxicity**: No data available

**Components**

**Acute oral toxicity**: Lactic acid
LD₅₀ Rat: 3,543 mg/kg

Sodium hydrogensulfate
LD₅₀ Rat: 2,140 mg/kg

Dodecylbenzenesulfonic acid, sodium salt
LD₅₀ Rat: 1,086 mg/kg

**Components**

**Acute inhalation toxicity**: Lactic acid
4 h LC₅₀ Rat: > 7.94 mg/l
Test atmosphere: dust/mist

Sodium hydrogensulfate
4 h LC₅₀ Rat: > 2.4 mg/l
Test atmosphere: dust/mist

**SECTION 12. ECOLOGICAL INFORMATION**

**Product AS SOLD**

**Ecotoxicity**

**Environmental Effects**: This product has no known ecotoxicological effects.

**Product**

**Toxicity to fish**: No data available
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Toxicity to daphnia and other aquatic invertebrates: No data available

Toxicity to algae: No data available

Components

Toxicity to fish:
- Lactic acid
  96 h LC50 Fish: 130 mg/l

- Sodium hydrogensulfate
  96 h LC50 Fish: 7,960 mg/l

- Dodecylbenzenesulfonic acid, sodium salt
  96 h LC50 Fish: 3.2 mg/l

Persistence and degradability

Product AS SOLD
Not applicable - Biocide

Product AT USE DILUTION
Not applicable - Biocide

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: 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: Diluted product can be flushed to sanitary sewer.

Disposal considerations: Dispose of in accordance with local, state, and federal regulations.

SECTION 14. TRANSPORT INFORMATION

Product AS SOLD
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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 (DOT)
Not dangerous goods

Sea transport (IMDG/IMO)
Not dangerous goods

SECTION 15. REGULATORY INFORMATION

Product AS SOLD

EPA Registration number : 1677-234

EPCRA - Emergency Planning and Community Right-to-Know

CERCLA Reportable Quantity

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Component RQ (lbs)</th>
<th>Calculated product RQ (lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dodecylbenzenesulfonic acid, sodium salt</td>
<td>25155-30-0</td>
<td>1000</td>
<td>81103</td>
</tr>
</tbody>
</table>

SARA 304 Extremely Hazardous Substances Reportable Quantity
This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards
: Acute toxicity (any route of exposure)
  Serious eye damage or eye irritation
  Respiratory or skin sensitization

SARA 302
: This material does not contain any components with a section 302 EHS TPQ.

SARA 313
: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

California Prop. 65
This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

California Cleaning Product Right to Know Act of 2017 (SB 258)
This regulation applies to this product.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No.</th>
<th>Function</th>
<th>List(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>water</td>
<td>7732-18-5</td>
<td>Diluent</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Lactic acid</td>
<td>79-33-4</td>
<td>Biocide</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Sodium hydrogensulfate</td>
<td>7681-38-1</td>
<td>Buffer</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Dodecylbenzenesulfonic acid, sodium salt</td>
<td>25155-30-0</td>
<td>Biocide</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Gum</td>
<td>Withheld</td>
<td>Processing Aid</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Oxyalkylated fatty acid derivative</td>
<td>Withheld</td>
<td>Cleaning Agent</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Nonionic surfactant</td>
<td>Withheld</td>
<td>Cleaning Agent</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Silicone compound</td>
<td>Withheld</td>
<td>Processing Aid</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Colorant</td>
<td>Withheld</td>
<td>Dye</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Colorant</td>
<td>Withheld</td>
<td>Dye</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

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The ingredients 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 Inventory of Chemical Substances (AICS)**: On the inventory, or in compliance with the inventory

**New Zealand. Inventory of Chemical Substances**: not determined

**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)**: On the inventory, or in compliance with the inventory

**China. Inventory of Existing Chemical Substances in China (IECSC)**: On the inventory, or in compliance with the inventory

**Taiwan Chemical Substance Inventory (TCSI)**: On the inventory, or in compliance with the inventory

**SECTION 16. OTHER INFORMATION**

<table>
<thead>
<tr>
<th>Product AS SOLD</th>
<th>HMIS III:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NFPA:</strong></td>
<td></td>
</tr>
<tr>
<td>Flammability</td>
<td>HEALTH 2*</td>
</tr>
<tr>
<td>Health</td>
<td>FLAMMABILITY 0</td>
</tr>
<tr>
<td>Instability</td>
<td>PHYSICAL HAZARD 0</td>
</tr>
<tr>
<td>Special hazard</td>
<td></td>
</tr>
</tbody>
</table>

0 = not significant, 1 = Slight, 2 = Moderate, 3 = High, 4 = Extreme, * = Chronic

**Product AT USE DILUTION**
SAFETY DATA SHEET
ANTIMICROBIAL FRUIT & VEGETABLE TREATMENT

Issuing date : 10/18/2019
Version : 1.4
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.