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 Química Ltda.
Avenida Gupe, 10933
Jd. Belval - Barueri – SP, Brazil Cep.: 06422-120
0800 704 1409
sac.brasil@ecolab.com

Emergency telephone: 0800 701 0450 (Planitox) – Medical Emergency.
0800 118270 (ABIQUIM / PROQUIMICA)

Issuing date: 04.06.2019

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Product AS SOLD
Acute toxicity (Inhalation): Category 4
Eye irritation: Category 2A

Product AT USE DILUTION

GHS label elements
Product AS SOLD
Hazard pictograms: !

Signal Word: Warning
Hazard Statements: Causes serious eye irritation.
Harmful if inhaled.
Precautionary Statements: Prevention:
Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray. Wash skin thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear eye protection/ face protection.
Response:
IF INHALED: Remove person to fresh air and keep comfortable for breathing. 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 eye irritation persists: Get medical advice/ attention.

Product AT USE DILUTION

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04.06.2019
Precautionary Statements

**Prevention:**
Wash hands thoroughly after handling.

**Response:**
Get medical advice/attention if you feel unwell.

**Storage:**
Store in accordance with local regulations.

**Product AS SOLD**

**Other hazards**
Do not mix with bleach or other chlorinated products – will cause chlorine gas.

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>Lactic acid</td>
<td>79-33-4</td>
<td>10 - 30</td>
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<tr>
<td>Sodium hydrogensulfate</td>
<td>7681-38-1</td>
<td>5 - 10</td>
</tr>
<tr>
<td>Dodecylbenzenesulfonic acid, sodium salt</td>
<td>25155-30-0</td>
<td>1 - 5</td>
</tr>
</tbody>
</table>

**Product AT USE DILUTION**
No hazardous ingredients

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.

In case of skin contact: 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.

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

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

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.

**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
- Nitrogen oxides (NOx)
- Sulfur oxides
- Oxides of phosphorus

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.

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.

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 material to ensure runoff does not reach a waterway.

SECTION 7. HANDLING AND STORAGE

Product AS SOLD
SAFETY DATA SHEET
ANTIMICROBIAL FRUIT & VEGETABLE TREATMENT

Advice on safe handling: Avoid contact with skin and eyes. 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.


Storage temperature: 0 °C to 50 °C

Product AT USE DILUTION
Advice on safe handling: Wash hands after handling. 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. Remove and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after handling.

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
### SAFETY DATA SHEET

**ANTIMICROBIAL FRUIT & VEGETABLE TREATMENT**

<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>
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<tr>
<td>Color</td>
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<td>light green</td>
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<tr>
<td>Odor</td>
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<td>odorless</td>
</tr>
<tr>
<td>pH</td>
<td>0.5 - 1.0, (100 %)</td>
<td>2.1 - 3.2</td>
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<tr>
<td>Flash point</td>
<td>closed cup</td>
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<tr>
<td>Odor Threshold</td>
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<tr>
<td>Melting point/freezing point</td>
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<td>Initial boiling point and boiling range</td>
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<td>Flammability (solid, gas)</td>
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</tr>
<tr>
<td>Upper explosion limit</td>
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</tr>
<tr>
<td>Lower explosion limit</td>
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<td></td>
</tr>
<tr>
<td>Vapor pressure</td>
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<tr>
<td>Relative vapor density</td>
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<td>1,069 - 1,135</td>
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<tr>
<td>Water solubility</td>
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<td>Solubility in other solvents</td>
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<td>Partition coefficient: n-octanol/water</td>
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<td>Thermal decomposition</td>
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<td>Viscosity, kinematic</td>
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<td>Explosive properties</td>
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<td>Oxidizing properties</td>
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<tr>
<td>Molecular weight</td>
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<tr>
<td>VOC</td>
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</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.
- **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
- Nitrogen oxides (NOx)
- Sulfur oxides
- Oxides of phosphorus

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: 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.
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.
SAFETY DATA SHEET
ANTIMICROBIAL FRUIT & VEGETABLE TREATMENT

No symptoms known or expected.

Toxicity

Product AS SOLD

Product

Acute oral toxicity : LD50 Oral : > 5.000 mg/kg
Test substance: Product

Acute inhalation toxicity : > 13 mg/l
Test atmosphere: dust/mist

Acute dermal toxicity : Acute toxicity estimate : 1.100 mg/kg

Skin corrosion/irritation : No skin irritation

Serious eye damage/eye irritation : Eye irritation
Test substance: Product

Respiratory or skin sensitization : May cause sensitization by skin contact.
Test substance: Product

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

SECTION 12. ECOLOGICAL INFORMATION

Product AS SOLD

Ecotoxicity

Environmental Effects : This product has no known ecotoxicological 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 : 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
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: Dispose of product, waste product and product packaging should follow the Federal, State, Municipal and local current regulation. Consult the environmental official organ if necessary. The classification of waste should be determined according to Brazilian Normative 10004 "Solid waste - Classification." The transport and disposal should be performed by a properly licensed company. Do not reuse container for any purpose.

Product AT USE DILUTION
Disposal methods: Dispose of product, waste product and product packaging should follow the Federal, State, Municipal and local current regulation. Consult the environmental official organ if necessary. The classification of waste should be determined according to Brazilian Normative 10004 "Solid waste - Classification." The transport and disposal should be performed by a properly licensed company. Do not reuse container for any purpose.

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 (ANTT 5.232)
Not dangerous goods

Air transport (IATA)

Contact Regulatory for air freight eligibility

Sea transport (IMDG/IMO)
Not dangerous goods

SECTION 15. REGULATORY INFORMATION

NATIONAL REGULATIONS, BRAZIL

Brazil: Our FISPQ complies with the Brazilian Rule ABNT NBR 14725.
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.