SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : LEMON FRESH DISINFECTANT CLEANER
Other means of identification : Not applicable
Recommended use : Disinfectant
Restrictions on use : Reserved for industrial and professional use.
Product dilution information : 0.0% - 1.56%

Company : Ecolab Inc.
4050 Corporate Dr., #100
Grapevine, Texas USA 76051-2326
1-866-999-7484

Emergency health information : 1-866-897-8061 (US/Canada), 952-852-4656 (outside US)
Issuing date : 10/24/2016

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Product AS SOLD
Acute toxicity (Oral) : Category 4
Skin corrosion : Category 1A
Serious eye damage : Category 1

Product AT USE DILUTION
Not a hazardous substance or mixture.

GHS label elements
Product AS SOLD
Hazard pictograms :

Signal Word : Danger
Hazard Statements : Harmful if swallowed.
Causes severe skin burns and eye damage.
Precautionary Statements : Prevention:
Wash skin thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/ protective clothing/ eye protection/ face protection.
Response:
IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
Rinse mouth. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor. IF IN EYES: Rinse cautiously with water for
SAFETY DATA SHEET
LEMON FRESH DISINFECTANT CLEANER

several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor. Wash contaminated clothing before reuse.

Storage:
Store locked up.

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

Product AT USE DILUTION
Signal Word: Caution
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: 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>Alcohols, C9-11, ethoxylated</td>
<td>68439-46-3</td>
<td>1 - 5</td>
</tr>
<tr>
<td>ethylenediamine tetraacetate</td>
<td>64-02-8</td>
<td>1 - 5</td>
</tr>
<tr>
<td>Alkyl (C14 50%; C12 40%; C16 10%) dimethyl benzyl ammonium chloride</td>
<td>68424-85-1</td>
<td>1.52</td>
</tr>
<tr>
<td>sodium metasilicate</td>
<td>6834-92-0</td>
<td>1 - 5</td>
</tr>
<tr>
<td>Octyl decyl dimethyl ammonium chloride</td>
<td>32426-11-2</td>
<td>1.14</td>
</tr>
<tr>
<td>Dioctyl dimethyl ammonium chloride</td>
<td>5538-94-3</td>
<td>0.456</td>
</tr>
<tr>
<td>Didecyl Dimethyl Ammonium Chloride</td>
<td>7173-51-5</td>
<td>0.684</td>
</tr>
</tbody>
</table>

Product AT USE DILUTION

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No.</th>
<th>Concentration (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alkyl (C14 50%; C12 40%; C16 10%) dimethyl benzyl ammonium chloride</td>
<td>68424-85-1</td>
<td>0.0237</td>
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<tr>
<td>Octyl decyl dimethyl ammonium chloride</td>
<td>32426-11-2</td>
<td>0.0178</td>
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<tr>
<td>Dioctyl dimethyl ammonium chloride</td>
<td>5538-94-3</td>
<td>0.0071</td>
</tr>
<tr>
<td>Didecyl Dimethyl Ammonium Chloride</td>
<td>7173-51-5</td>
<td>0.0107</td>
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</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: 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 immediately.

If swallowed: Rinse mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.
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.

**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 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). 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 material to ensure runoff does not reach a waterway.

SECTION 7. HANDLING AND STORAGE

Product AS SOLD

Advice on safe handling: Do not ingest. 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.


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.


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: Wear eye protection/ face protection.

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.
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LEMON FRESH DISINFECTANT CLEANER

Skin protection: Personal protective equipment comprising: suitable protective gloves, safety goggles and protective clothing.

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. Provide suitable facilities for quick drenching or flushing of the eyes and body in case of contact or splash hazard.

Product AT USE DILUTION

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: 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>clear, light yellow</td>
<td>light yellow</td>
</tr>
<tr>
<td>Odor</td>
<td>citrus</td>
<td>citrus</td>
</tr>
<tr>
<td>pH</td>
<td>12.4 - 13.4, 100 %</td>
<td>12.4</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not applicable, Does not sustain combustion.</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>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>No data available</td>
<td></td>
</tr>
<tr>
<td>Upper explosion limit</td>
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<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>
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</tr>
<tr>
<td>Relative density</td>
<td>1.015 - 1.035</td>
<td></td>
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<tr>
<td>Water solubility</td>
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</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>
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</table>
## SAFETY DATA SHEET

### LEMON FRESH DISINFECTANT CLEANER

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autoignition temperature</td>
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</tr>
<tr>
<td>Thermal decomposition</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>The substance or mixture is not classified as oxidizing.</td>
</tr>
<tr>
<td>Molecular weight</td>
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</tr>
<tr>
<td>VOC</td>
<td>No data available</td>
</tr>
</tbody>
</table>

### SECTION 10. STABILITY AND REACTIVITY

**Product AS SOLD**

- **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**: Acids
- **Hazardous decomposition products**: Decomposition products may include the following materials:
  - Carbon oxides
  - Nitrogen oxides (NOx)
  - Sulfur oxides
  - Oxides of phosphorus

### SECTION 11. TOXICOLOGICAL INFORMATION

**Potential Health Effects**

**Product AS SOLD**

- **Eyes**: Causes serious eye damage.
- **Skin**: Causes severe skin burns.
- **Ingestion**: Harmful if swallowed. Causes digestive tract burns.
- **Inhalation**: May cause nose, throat, and lung irritation.
- **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**
SAFETY DATA SHEET

LEMON FRESH DISINFECTANT CLEANER

Product AS SOLD
Eye contact : Redness, Pain, Corrosion
Skin contact : Redness, Pain, Corrosion
Ingestion : Corrosion, Abdominal pain
Inhalation : Respiratory irritation, Cough

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
Product
Acute inhalation toxicity : No data available
Acute dermal toxicity : Acute toxicity estimate: > 5,000 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

Ingredients
Acute inhalation toxicity : Alkyl (C14 50%; C12 40%; C16 10%) dimethyl benzyl ammonium chloride
4 h LC50 Rat: > 0.054 mg/l
Octyl decyl dimethyl ammonium chloride
4 h LC50 Rat: 0.07 mg/l
Dioctyl dimethyl ammonium chloride
4 h LC50 Rat: 0.07 mg/l
Didecyl Dimethyl Ammonium Chloride
4 h LC50 Rat: 0.07 mg/l

SECTION 12. ECOLOGICAL INFORMATION
SAFETY DATA SHEET

LEMON FRESH DISINFECTANT CLEANER

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

Ingredients
Toxicity to fish : Alcohols, C9-11, ethoxylated
96 h LC50 Fish: 8.5 mg/l
ethylenediamine tetraacetate
96 h LC50 Fish: 121 mg/l
sodium metasilicate
96 h LC50 Fish: 210 mg/l
Octyl decyl dimethyl ammonium chloride
96 h LC50 Fish: 1 mg/l
Didecyl Dimethyl Ammonium Chloride
96 h LC50 Fish: 1 mg/l

Toxicity to daphnia and other aquatic invertebrates : Alcohols, C9-11, ethoxylated
48 h EC50 Daphnia magna (Water flea): 5.3 mg/l
Alkyl (C14 50%; C12 40%; C16 10%) dimethyl benzyl ammonium chloride
48 h EC50 Daphnia magna (Water flea): 0.016 mg/l
Dioctyl dimethyl ammonium chloride
48 h EC50 Daphnia: 0.1 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
SAFETY DATA SHEET
LEMON FRESH DISINFECTANT CLEANER

Product AS SOLD
Disposal methods : Do not contaminate ponds, waterways or ditches with chemical or used container. 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
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 : 6836-73-1677
EPCRA - Emergency Planning and Community Right-to-Know
CERCLA Reportable Quantity
This material does not contain any components with a CERCLA RQ.

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 Health Hazard
SARA 302 : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
SAFETY DATA SHEET

LEMON FRESH DISINFECTANT CLEANER

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.

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

United States TSCA Inventory: On 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: On the inventory, or in compliance with the inventory

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

Japan. ISHL - Inventory of Chemical Substances (METI): 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

SECTION 16. OTHER INFORMATION

Product AS SOLD
NFPA:

<table>
<thead>
<tr>
<th>Flammability</th>
<th>Health</th>
<th>Instability</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>3</td>
<td>0</td>
</tr>
</tbody>
</table>

HMIS III:

<table>
<thead>
<tr>
<th>HEALTH</th>
<th>FLAMMABILITY</th>
<th>PHYSICAL HAZARD</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

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

Product AT USE DILUTION
**SAFETY DATA SHEET**

**LEMON FRESH DISINFECTANT CLEANER**

<table>
<thead>
<tr>
<th>NFPA:</th>
<th>HMIS III:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammability</td>
<td>HEALTH</td>
</tr>
<tr>
<td>Health</td>
<td>FLAMMABILITY</td>
</tr>
<tr>
<td>Instability</td>
<td>PHYSICAL HAZARD</td>
</tr>
<tr>
<td>Special hazard</td>
<td></td>
</tr>
</tbody>
</table>

- **Issuing date**: 10/24/2016
- **Version**: 1.2
- **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 Material 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.