SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name: Concentrated Foam Hand Sanitizer
Other means of identification: not applicable
Recommended use: Hand Sanitizer
Restrictions on use: Reserved for industrial and professional use.
Product dilution information: 9.5% - 10.5%

Company: Ecolab Inc.
370 N. Wabasha Street
St. Paul, Minnesota USA 55102
1-800-352-5326

Emergency telephone: 1-800-328-0026 (US/Canada), 1-651-222-5352 (outside US)
Issuing date: 06/24/2014

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Product AS SOLD
Not a hazardous substance or mixture.

Product AT USE DILUTION
Not a hazardous substance or mixture.

GHS Label element

Product AS SOLD
Precautionary Statements: Response:
Get medical advice/attention if you feel unwell.
Storage:
Store in accordance with local regulations.

Product AT USE DILUTION
Precautionary Statements: Response:
Get medical advice/attention if you feel unwell.
Storage:
Store in accordance with local regulations.

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>Propylene glycol</td>
<td>57-55-6</td>
<td>10 - 30</td>
</tr>
<tr>
<td>n-Alkyl (50% C14, 40% C12, 10% C16) Dimethyl</td>
<td>68424-85-1</td>
<td>0.1 - 1</td>
</tr>
<tr>
<td>Benzyl Ammonium Chloride</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Product AT USE DILUTION

916556-02  1 / 10
No hazardous ingredients

SECTION 4. FIRST AID MEASURES

Product AS SOLD
In case of eye contact : Rinse with water.
In case of skin contact : Rinse with water.
If swallowed : Rinse mouth. Get medical attention if symptoms occur.
If inhaled : Get medical attention if symptoms occur.
Protection of first-aiders : No special precautions are necessary for first aid responders.
Notes to physician : No specific measures identified.

Product AT USE DILUTION
In case of eye contact : Rinse with water.
In case of skin contact : Rinse with water.
If swallowed : Rinse mouth. Get medical attention if symptoms occur.
If inhaled : Get medical attention if symptoms occur.

See toxicological information (Section 11)

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.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Product AS SOLD
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: No special handling advice required.
Conditions for safe storage: Keep out of reach of children. Store in suitable labeled containers.
Storage temperature: 5 °C to 50 °C

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Product AS SOLD
Ingredients with workplace control parameters

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS-No.</th>
<th>Form of exposure</th>
<th>Permissible concentration</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propylene glycol</td>
<td>57-55-6</td>
<td>TWA</td>
<td>10 mg/m3</td>
<td>WEEL</td>
</tr>
<tr>
<td>ethanol</td>
<td>64-17-5</td>
<td>TWA</td>
<td>1,000 ppm</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>1,000 ppm 1,900 mg/m3</td>
<td>NIOSH REL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>1,000 ppm 1,900 mg/m3</td>
<td>OSHA Z1</td>
</tr>
</tbody>
</table>

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

Personal protective equipment
SAFETY DATA SHEET

Concentrated Foam Hand Sanitizer

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.
Hygiene measures : No specific measures identified.

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>Appearance</th>
<th>Product AS SOLD</th>
<th>Product AT USE DILUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>clear, orange</td>
<td>light orange</td>
</tr>
<tr>
<td>Odor</td>
<td>mild</td>
<td>mild</td>
</tr>
<tr>
<td>pH</td>
<td>5.0 - 9.0, 100 %</td>
<td>5.0 - 9.0</td>
</tr>
<tr>
<td>Flash point</td>
<td>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>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>
<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>0.95 - 1.05</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-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>
</tbody>
</table>
SAFETY DATA SHEET

Concentrated Foam Hand Sanitizer

Viscosity, kinematic: no data available
Explosive properties: no data available
Oxidizing properties: The substance or mixture is not classified as oxidizing.
Molecular weight: no data available
VOC: no data available

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: None known.
Hazardous decomposition products: Decomposition products may include the following materials:
- 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: 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.

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: No symptoms known or expected.
## SAFETY DATA SHEET

Concentrated Foam Hand Sanitizer

**Skin contact**: No symptoms known or expected.

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

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

### Product AT USE DILUTION

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

### Toxicity

#### Product AS SOLD

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Acute oral toxicity</strong></td>
<td>Acute toxicity estimate: &gt; 5,000 mg/kg</td>
</tr>
<tr>
<td><strong>Acute inhalation toxicity</strong></td>
<td>no data available</td>
</tr>
<tr>
<td><strong>Acute dermal toxicity</strong></td>
<td>Acute toxicity estimate: &gt; 5,000 mg/kg</td>
</tr>
<tr>
<td><strong>Skin corrosion/irritation</strong></td>
<td>no data available</td>
</tr>
<tr>
<td><strong>Serious eye damage/eye irritation</strong></td>
<td>no data available</td>
</tr>
<tr>
<td><strong>Respiratory or skin sensitization</strong></td>
<td>no data available</td>
</tr>
</tbody>
</table>

**Carcinogenicity**

- **IARC**: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
- **OSHA**: No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
- **NTP**: No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

**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

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Acute inhalation toxicity</strong></td>
<td></td>
</tr>
<tr>
<td>Propylene glycol</td>
<td>4 h LC50 rat: &gt; 158.5 mg/l</td>
</tr>
<tr>
<td>n-Alkyl (50% C14, 40% C12, 10% C16) Dimethyl Benzyl Ammonium Chloride</td>
<td>4 h LC50 rat: &gt; 0.054 mg/l</td>
</tr>
</tbody>
</table>
SECTION 12. ECOLOGICAL INFORMATION

Product AS SOLD
Ecotoxicity
Environmental Effects: Very toxic to aquatic life.

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 daphnia and other aquatic invertebrates: Propylene glycol
48 h EC50 Daphnia: 18,340 mg/l
n-Alkyl (50% C14, 40% C12, 10% C16) Dimethyl Benzyl Ammonium Chloride
48 h EC50: 0.0059 mg/l

Persistence and degradability
no data available

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.

Product AT USE DILUTION
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.

SECTION 14. TRANSPORT INFORMATION
SAFETY DATA SHEET

Concentrated Foam Hand Sanitizer

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

Product AT USE DILUTION
Not intended for transport.

SECTION 15. REGULATORY INFORMATION

Product AS SOLD

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 : No SARA Hazards

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

SARA 313 : 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:

1907/2006 (EU) : not determined

Switzerland. New notified substances and declared preparations : On the inventory, or in compliance with the inventory

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 :
SAFETY DATA SHEET

Concentrated Foam Hand Sanitizer

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:

Flammability

HMIS III:

Health: 0
Flammability: 0
Physical Hazard: 0

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

Product AT USE DILUTION
NFPA:

Flammability

HMIS III:

Health: 0
Flammability: 0
Physical Hazard: 0

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

Issuing date: 06/24/2014
Version: 1.0
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.
SAFETY DATA SHEET

Concentrated Foam Hand Sanitizer

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.