## SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

<table>
<thead>
<tr>
<th>Description</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product name</td>
<td>DETERGENT - ALKALINE LIQUID OPX 1</td>
</tr>
<tr>
<td>Other means of identification</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Recommended use</td>
<td>Laundry detergent</td>
</tr>
<tr>
<td>Restrictions on use</td>
<td>Reserved for industrial and professional use.</td>
</tr>
<tr>
<td>Product dilution information</td>
<td>0.1 % - 0.18 %</td>
</tr>
</tbody>
</table>
| Company                                          | Ecolab Inc.  
370 N. Wabasha Street  
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                                     | 01/23/2017 |

## SECTION 2. HAZARDS IDENTIFICATION

### GHS Classification

**Product AS SOLD**
- Skin corrosion: Category 1A
- Serious eye damage: Category 1

**Product AT USE DILUTION**
- Skin corrosion: Category 1A
- Serious eye damage: Category 1

### GHS label elements

**Product AS SOLD**
- Hazard pictograms: ![Pictogram]
- Signal Word: Danger
- Hazard Statements: Causes severe skin burns and eye damage.
- Precautionary Statements: Prevention: Wash skin thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Response: 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 several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor. Wash contaminated clothing before reuse.
SAFETY DATA SHEET

DETERGENT - ALKALINE LIQUID OPX 1

Storage: Store locked up.
Disposal: Dispose of contents/ container to an approved waste disposal plant.

Product AT USE DILUTION
Hazard pictograms :

Signal Word : Danger
Hazard Statements : Causes severe skin burns and eye damage.
Precautionary Statements :

Prevention: Wash skin thoroughly after handling. Wear protective gloves/ protective clothing/ eye protection/ face protection.
Response: 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 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 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>Sodium hydroxide</td>
<td>1310-73-2</td>
<td>10 - 30</td>
</tr>
<tr>
<td>c12-c14 pareth-7</td>
<td>68551-12-2</td>
<td>10 - 30</td>
</tr>
<tr>
<td>poly(oxy-1,2-ethanediyl), .alpha.-isotridecyl-.omega.-hydroxy-alanine, n,n-bis(carboxymethyl)-, trisodium salt</td>
<td>9043-30-5</td>
<td>5 - 10</td>
</tr>
<tr>
<td></td>
<td>164462-16-2</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 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.

### 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.
- 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.
- Rinse mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.
- Remove to fresh air. Treat symptomatically. 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:** Fire residues and contaminated fire extinguishing water must be
SAFETY DATA SHEET

DETERGENT - ALKALINE LIQUID OPX 1

methods 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: 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.

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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: 5 °C to 50 °C

Product AT USE DILUTION

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.

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

<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>sodium hydroxide</td>
<td>1310-73-2</td>
<td>Ceiling</td>
<td>2 mg/m³</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ceiling</td>
<td>2 mg/m³</td>
<td>NIOSH REL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>2 mg/m³</td>
<td>OSHA Z1</td>
</tr>
</tbody>
</table>

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.

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 : 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.

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.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Product AS SOLD
Product AT USE DILUTION
SAFETY DATA SHEET

DETERGENT - ALKALINE LIQUID OPX 1

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Emulsion liquid</td>
</tr>
<tr>
<td>Color</td>
<td>opaque, yellow colorless</td>
</tr>
<tr>
<td>Odor</td>
<td>citrus citrus</td>
</tr>
<tr>
<td>pH</td>
<td>13.0 - 14.0, 100 %</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>No data available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data available</td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>No data available</td>
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<tr>
<td>Lower explosion limit</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative vapor density</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>1.207 - 1.275</td>
</tr>
<tr>
<td>Water solubility</td>
<td>soluble</td>
</tr>
<tr>
<td>Solubility in other solvents</td>
<td>No data available</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>No data available</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Thermal decomposition</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>2000.000 mm2/s (40 °C)</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Molecular weight</td>
<td>No data available</td>
</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
                      Metals
                      Organic materials

Hazardous decomposition products: Decomposition products may include the following materials:
                                Carbon oxides
                                Nitrogen oxides (NOx)
                                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 damage.

**Skin**
Causes severe skin burns.

**Ingestion**
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**
Causes serious eye damage.

**Skin**
Causes severe skin burns.

**Ingestion**
Causes digestive tract burns.

**Inhalation**
May cause nose, throat, and lung irritation.

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

Experience with human exposure

**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**
Redness, Pain, Corrosion

**Skin contact**
Redness, Pain, Corrosion

**Ingestion**
Corrosion, Abdominal pain

**Inhalation**
Respiratory irritation, Cough

Toxicity

**Product AS SOLD**

**Product**

**Acute oral toxicity**
Acute toxicity estimate: 4,905 mg/kg

**Acute inhalation toxicity**
No data available

**Acute dermal toxicity**
Acute toxicity estimate: > 5,000 mg/kg
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DETERGENT - ALKALINE LIQUID OPX 1

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

SECTION 12. ECOLOGICAL INFORMATION

Product AS SOLD

Ecotoxicity

Environmental Effects : 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 fish : c12-c14 pareth-7
96 h LC50 Fish: 1.5 mg/l
poly(oxy-1,2-ethanediyl), .alpha.-isotridecyl-.omega.-hydroxy-
96 h LC50 Fish: 0.25 mg/l
alanine, n,n-bis(carboxymethyl)-, trisodium salt
96 h LC50 Fish: > 200 mg/l

Ingredients

Toxicity to daphnia and other aquatic invertebrates : Sodium hydroxide
48 h EC50: 40 mg/l

Persistence and degradability

Product AS SOLD
Biodegradable/Eliminated from aquatic environment

Product AT USE DILUTION
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**
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.

D002 (Corrosive)

**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. 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)**

- **UN number**: 1824
- **Description of the goods**: Sodium hydroxide solution
- **Class**: 8
- **Packing group**: II
- **Environmentally hazardous**: no

**Sea transport (IMDG/IMO)**

- **UN number**: 1824
- **Description of the goods**: SODIUM HYDROXIDE SOLUTION
- **Class**: 8
- **Packing group**: II
- **Marine pollutant**: no

### SECTION 15. REGULATORY INFORMATION
SAFETY DATA SHEET

DETERGENT - ALKALINE LIQUID OPX 1

Product AS SOLD

EPCRA - Emergency Planning and Community Right-to-Know

CERCLA Reportable Quantity

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS-No.</th>
<th>Component RQ (lbs)</th>
<th>Calculated product RQ (lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>1310-73-2</td>
<td>1000</td>
<td>5102</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 Health Hazard

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

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) : This product contains one or several components listed in the Canadian NDSL.

Australia Inventory of Chemical Substances (AICS) : not determined

New Zealand. Inventory of Chemical Substances : not determined

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

Korea. Korean Existing Chemicals Inventory (KECI) : not determined

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

China. Inventory of Existing Chemical Substances in China (IECSC) : not determined

Taiwan Chemical Substance Inventory : not determined

SECTION 16. OTHER INFORMATION

Product AS SOLD
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.