SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Tri-Star L2000 XP
Other means of identification : not applicable
Recommended use : Laundry detergent
Restrictions on use : Reserved for industrial and professional use.
Product dilution information : 0.1% - 0.18%

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 : 03/14/2014

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Product AS SOLD
Skin corrosion : Category 1A
Serious eye damage : Category 1

Product AT USE DILUTION
Not a hazardous substance or mixture.

GHS Label element
Product AS SOLD
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): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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 or doctor/ physician. Wash contaminated clothing before reuse.
Storage:
Store locked up.
Disposal:
Dispose of contents/ container to an approved waste disposal plant.

Precautionary Statements:

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

**Response:**
Specific measures: consult MSDS Section 4.

**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>sodium hydroxide</td>
<td>1310-73-2</td>
<td>10 - 30</td>
</tr>
<tr>
<td>poly(oxy-1,2-ethanediyl), a-(2-propylheptyl)-w-hydroxy-alcohols, c12-16, ethoxylated</td>
<td>160875-66-1</td>
<td>10 - 30</td>
</tr>
<tr>
<td></td>
<td>68551-12-2</td>
<td>10 - 30</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.

**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.
SAFETY DATA SHEET

Tri-Star L2000 XP

If inhaled : Get medical attention if symptoms occur.

See toxicological information (Section 11)

SECTION 5. FIRE-FIGHTING MEASURES

<table>
<thead>
<tr>
<th>Product AS SOLD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suitable extinguishing media</td>
</tr>
<tr>
<td>Unsuitable extinguishing media</td>
</tr>
<tr>
<td>Specific hazards during fire fighting</td>
</tr>
<tr>
<td>Hazardous combustion products</td>
</tr>
<tr>
<td>Special protective equipment for fire-fighters</td>
</tr>
<tr>
<td>Specific extinguishing methods</td>
</tr>
</tbody>
</table>

SECTION 6. ACCIDENTAL RELEASE MEASURES

<table>
<thead>
<tr>
<th>Product AS SOLD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal precautions, protective equipment and emergency procedures</td>
</tr>
<tr>
<td>Environmental precautions</td>
</tr>
<tr>
<td>Methods and materials for containment and cleaning up</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Product AT USE DILUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal precautions, protective equipment and emergency procedures</td>
</tr>
<tr>
<td>Environmental precautions</td>
</tr>
<tr>
<td>Methods and materials for containment and cleaning up</td>
</tr>
</tbody>
</table>
SECTION 7. HANDLING AND STORAGE

Product AS SOLD
Advice on safe handling: Do not ingest. Do not breathe dust/ fume/ gas/ mist/ vapors/ spray. Do not get in eyes, on skin, or on clothing. Wash hands thoroughly after handling. Use only with adequate ventilation.


Storage temperature: 10 °C to 50 °C

Product AT USE DILUTION
Advice on safe handling: For personal protection see section 8. Wash hands after handling.


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: Safety goggles
Face-shield

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: 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></th>
<th>Product AS SOLD</th>
<th>Product AT USE DILUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Appearance</strong></td>
<td>Emulsion</td>
<td>liquid</td>
</tr>
<tr>
<td><strong>Color</strong></td>
<td>opaque, blue</td>
<td>colorless</td>
</tr>
<tr>
<td><strong>Odor</strong></td>
<td>slight</td>
<td>odorless</td>
</tr>
<tr>
<td><strong>pH</strong></td>
<td>13.0 - 14.0, 100 %</td>
<td>11.0 - 12.0</td>
</tr>
<tr>
<td><strong>Flash point</strong></td>
<td>not applicable. Does not sustain combustion.</td>
<td></td>
</tr>
<tr>
<td><strong>Odor Threshold</strong></td>
<td>no data available</td>
<td></td>
</tr>
<tr>
<td><strong>Melting point/freezing point</strong></td>
<td>no data available</td>
<td></td>
</tr>
<tr>
<td><strong>Initial boiling point and boiling range</strong></td>
<td>&gt; 100 °C</td>
<td></td>
</tr>
<tr>
<td><strong>Evaporation rate</strong></td>
<td>no data available</td>
<td></td>
</tr>
<tr>
<td><strong>Flammability (solid, gas)</strong></td>
<td>no data available</td>
<td></td>
</tr>
<tr>
<td><strong>Upper explosion limit</strong></td>
<td>no data available</td>
<td></td>
</tr>
<tr>
<td><strong>Lower explosion limit</strong></td>
<td>no data available</td>
<td></td>
</tr>
<tr>
<td><strong>Vapor pressure</strong></td>
<td>no data available</td>
<td></td>
</tr>
<tr>
<td><strong>Relative vapor density</strong></td>
<td>no data available</td>
<td></td>
</tr>
<tr>
<td><strong>Relative density</strong></td>
<td>1.207 - 1.275</td>
<td></td>
</tr>
<tr>
<td><strong>Water solubility</strong></td>
<td>soluble</td>
<td></td>
</tr>
<tr>
<td><strong>Solubility in other solvents</strong></td>
<td>no data available</td>
<td></td>
</tr>
<tr>
<td><strong>Partition coefficient; n-octanol/water</strong></td>
<td>no data available</td>
<td></td>
</tr>
<tr>
<td><strong>Autoignition temperature</strong></td>
<td>no data available</td>
<td></td>
</tr>
<tr>
<td><strong>Thermal decomposition</strong></td>
<td>no data available</td>
<td></td>
</tr>
<tr>
<td><strong>Viscosity, kinematic</strong></td>
<td>2,018.131 mm2/s</td>
<td></td>
</tr>
<tr>
<td><strong>Explosive properties</strong></td>
<td>no data available</td>
<td></td>
</tr>
<tr>
<td><strong>Oxidizing properties</strong></td>
<td>no data available</td>
<td></td>
</tr>
<tr>
<td><strong>Molecular weight</strong></td>
<td>no data available</td>
<td></td>
</tr>
<tr>
<td><strong>VOC</strong></td>
<td>no data available</td>
<td></td>
</tr>
</tbody>
</table>

### SECTION 10. STABILITY AND REACTIVITY

**Product AS SOLD**
SAFETY DATA SHEET

Tri-Star L2000 XP

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: Carbon 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: 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, 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.
## SAFETY DATA SHEET

### Tri-Star L2000 XP

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<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**

- **Acute oral toxicity**: Acute toxicity estimate: > 5,000 mg/kg
- **Acute inhalation toxicity**: no data available
- **Acute dermal toxicity**: no data available
- **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 dermal toxicity**: alcohols, c12-16, ethoxylated
  - LD50 rabbit: > 2,000 mg/kg

### SECTION 12. ECOLOGICAL INFORMATION

**Product AS SOLD**

- **Ecotoxicity**
  - **Environmental Effects**: Harmful 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**: alcohols, c12-16, ethoxylated
  - 96 h LC50 Fish: 1.5 mg/l

**Ingredients**

- **Toxicity to daphnia and other aquatic invertebrates**: sodium hydroxide
  - 48 h EC50: 40 mg/l
  - poly(oxy-1,2-ethanediyl), a-(2-propylheptyl)-w-hydroxy-
  - 48 h EC50 Daphnia: 10 mg/l
Persistence and degradability
Taking into consideration the properties of several ingredients, the product is estimated to be biodegradable according to OECD classification.

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.

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.

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
SAFETY DATA SHEET

Tri-Star L2000 XP

Description of the goods: SODIUM HYDROXIDE SOLUTION
Class: 8
Packing group: II
Marine pollutant: no

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

<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>4441</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: 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: not determined
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): not determined
New Zealand. Inventory of Chemical Substances: not determined
Japan. ENCS - Existing and New Chemical Substances Inventory: not determined
Japan. ISHL - Inventory of Chemical Substances (METI): not determined
**SAFETY DATA SHEET**

**Tri-Star L2000 XP**

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

### SECTION 16. OTHER INFORMATION

**Product AS SOLD**

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

**HMIS III**:

| HEALTH | 3 |
| FLAMMABILITY | 0 |
| PHYSICAL HAZARD | 0 |

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

**Product AT USE DILUTION**

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

**HMIS III**:

| HEALTH | 0 |
| FLAMMABILITY | 0 |
| PHYSICAL HAZARD | 0 |

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

Issuing date : 03/14/2014
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.