## SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

<table>
<thead>
<tr>
<th>Product name</th>
<th>SOLID POWER XL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other means of identification</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Recommended use</td>
<td>Machine Warewashing 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>0.06 % - 0.15 %</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Company</th>
<th>Ecolab Inc.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>370 N. Wabasha Street</td>
</tr>
<tr>
<td></td>
<td>St. Paul, Minnesota USA 55102</td>
</tr>
<tr>
<td></td>
<td>1-800-352-5326</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Emergency telephone</th>
<th>1-800-328-0026 (US/Canada), 1-651-222-5352 (outside US)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Issuing date</td>
<td>11/13/2014</td>
</tr>
</tbody>
</table>

## SECTION 2. HAZARDS IDENTIFICATION

### GHS Classification

**Product AS SOLD**

<table>
<thead>
<tr>
<th>Skin corrosion</th>
<th>Category 1A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serious eye damage</td>
<td>Category 1</td>
</tr>
</tbody>
</table>

**Product AT USE DILUTION**

Not a hazardous substance or mixture.

### GHS Label element

**Product AS SOLD**

| Hazard pictograms | ![Danger Pictogram] |

<table>
<thead>
<tr>
<th>Signal Word</th>
<th>Danger</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazard Statements</td>
<td>Causes severe skin burns and eye damage.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Precautionary Statements</th>
<th>Prevention: Wash skin thoroughly after handling. Due to the form and packaging of the product, no protective equipment is needed under normal use conditions.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>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.</td>
</tr>
<tr>
<td></td>
<td>Storage:</td>
</tr>
</tbody>
</table>
Store locked up.

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

### Product AT USE DILUTION

**Precautionary Statements**
- **Prevention:** Wash hands thoroughly after handling.
- **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>sodium hydroxide</td>
<td>1310-73-2</td>
<td>60 - 100</td>
</tr>
<tr>
<td>Polycarboxylates</td>
<td>52255-49-9</td>
<td>1 - 5</td>
</tr>
</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.
SAFETY DATA SHEET
SOLID POWER XL

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 : Sweep up and shovel into suitable containers for disposal.

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. SAFETY REMINDER:
* Never pour product into unlabeled containers
* Use only for recommended uses. Read label.
* Never take product home. Use only in workplace.


Storage temperature: -10 °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

<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: Due to the form and packaging of the product, no protective equipment is needed under normal use conditions.

Hand protection: Due to the form and packaging of the product, no protective equipment is needed under normal use conditions.

Skin protection: Due to the form and packaging of the product, no protective equipment is needed under normal use conditions.

Respiratory protection: Due to the form and packaging of the product, no protective equipment is needed under normal use conditions.

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
SAFETY DATA SHEET

SOLID POWER XL

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>Appearance</td>
<td>Cast Solid</td>
<td>liquid</td>
</tr>
<tr>
<td>Color</td>
<td>opaque, white</td>
<td>colorless</td>
</tr>
<tr>
<td>Odor</td>
<td>odorless</td>
<td>odorless</td>
</tr>
<tr>
<td>pH</td>
<td>12.5 - 12.8, 1 %</td>
<td>10.11 - 10.91</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>No data available</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>
<tr>
<td>Viscosity, kinematic</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Molecular weight</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>VOC</td>
<td>No data available</td>
<td></td>
</tr>
</tbody>
</table>

SECTION 10. STABILITY AND REACTIVITY
SAFETY DATA SHEET
SOLID POWER XL

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
                                  : Oxides of phosphorus

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : 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
## SAFETY DATA SHEET

### SOLID POWER XL

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

### Toxicity

**Product AS SOLD**

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute oral toxicity</td>
<td>Acute toxicity estimate: &gt; 5,000 mg/kg</td>
</tr>
<tr>
<td>Acute inhalation toxicity</td>
<td>No data available</td>
</tr>
<tr>
<td>Acute dermal toxicity</td>
<td>No data available</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>No data available</td>
</tr>
<tr>
<td>Serious eye damage/eye irritation</td>
<td>No data available</td>
</tr>
<tr>
<td>Respiratory or skin sensitization</td>
<td>No data available</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>No data available</td>
</tr>
<tr>
<td>Reproductive effects</td>
<td>No data available</td>
</tr>
<tr>
<td>Germ cell mutagenicity</td>
<td>No data available</td>
</tr>
<tr>
<td>Teratogenicity</td>
<td>No data available</td>
</tr>
<tr>
<td>STOT-single exposure</td>
<td>No data available</td>
</tr>
<tr>
<td>STOT-repeated exposure</td>
<td>No data available</td>
</tr>
<tr>
<td>Aspiration toxicity</td>
<td>No data available</td>
</tr>
</tbody>
</table>

**Ingredients**

- Acute dermal toxicity: Polycarboxylates
  - LD50 Rabbit: > 5,000 mg/kg

### SECTION 12. ECOLOGICAL INFORMATION

**Product AS SOLD**

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ecotoxicity</td>
<td>Harmful to aquatic life.</td>
</tr>
</tbody>
</table>

**Product**

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toxicity to fish</td>
<td>No data available</td>
</tr>
<tr>
<td>Toxicity to daphnia and other aquatic invertebrates</td>
<td>No data available</td>
</tr>
<tr>
<td>Toxicity to algae</td>
<td>No data available</td>
</tr>
</tbody>
</table>

**Ingredients**

- Toxicity to fish: Polycarboxylates
  - 96 h LC50 Fish: > 100 mg/l

### Ingredients

- Toxicity to daphnia and other aquatic invertebrates: sodium hydroxide
  - 48 h EC50: 40 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. 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)
UN number : 1823
Description of the goods : Sodium hydroxide, solid
Class : 8
Packing group : II
Environmentally hazardous : no

Sea transport (IMDG/IMO)
UN number : 1823
Description of the goods : SODIUM HYDROXIDE, SOLID
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>1551</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:

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) : 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) : not determined

Philippines Inventory of Chemicals and Chemical Substances (PICCS) :
SAFETY DATA SHEET
SOLID POWER XL

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:

HMIS III:

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

Product AT USE DILUTION
NFPA:

HMIS III:

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

Issuing date : 11/13/2014
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.

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.