



## SAFETY DATA SHEET

### SOLID LIME-A-WAY

#### SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : SOLID LIME-A-WAY

Other means of identification : Not applicable

Recommended use : Delimer

Restrictions on use : Reserved for industrial and professional use.

Product dilution information : 0 % - 1.1 %

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 : 11/17/2014

#### SECTION 2. HAZARDS IDENTIFICATION

##### GHS Classification

##### Product AS SOLD

Eye irritation : Category 2B

##### Product AT USE DILUTION

Not a hazardous substance or mixture.

##### GHS Label element

##### Product AS SOLD

Signal Word : Warning

Hazard Statements : Causes eye irritation.

Precautionary Statements : **Prevention:**  
Wash skin thoroughly after handling. Do not mix with bleach or other chlorinated products – will cause chlorine gas.  
**Response:**  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/ attention.

##### 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

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#### Product AS SOLD

Pure substance/mixture : Mixture

| Chemical Name  | CAS-No.   | Concentration (%) |
|----------------|-----------|-------------------|
| citric acid    | 77-92-9   | 30 - 60           |
| sulphamic acid | 5329-14-6 | 30 - 60           |
| Urea           | 57-13-6   | 5 - 10            |
| Salicylic acid | 69-72-7   | 5 - 10            |

#### Product AT USE DILUTION

No hazardous ingredients

### SECTION 4. FIRST AID MEASURES

#### Product AS SOLD

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 : Remove to fresh air. Treat symptomatically. Get medical attention.

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

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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 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 breathe dust/ fume/ gas/ mist/ vapors/ spray. Use only with adequate ventilation. Wash hands thoroughly after handling. Do not mix with bleach or other chlorinated products – will cause chlorine gas.

Conditions for safe storage : Keep away from strong bases. Keep out of reach of children. Store in suitable labeled containers.

Storage temperature : 10 °C to 40 °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

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| Ingredients | CAS-No. | Form of exposure | Permissible concentration | Basis |
|-------------|---------|------------------|---------------------------|-------|
| Urea        | 57-13-6 | TWA              | 10 mg/m <sup>3</sup>      | WEEL  |

Engineering measures : Effective exhaust ventilation system. Maintain air concentrations below occupational exposure standards.

#### 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 : 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.

#### 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

|                                         | Product AS SOLD                                | Product AT USE DILUTION |
|-----------------------------------------|------------------------------------------------|-------------------------|
| Appearance                              | : solid                                        | liquid                  |
| Color                                   | : opaque, light green                          | light green             |
| Odor                                    | : slight                                       | odorless                |
| pH                                      | : 1.0 - 2.0, 1 %                               | 2.18                    |
| Flash point                             | : Not applicable, Does not sustain combustion. |                         |
| Odor Threshold                          | : No data available                            |                         |
| Melting point/freezing point            | : No data available                            |                         |
| Initial boiling point and boiling range | : No data available                            |                         |
| Evaporation rate                        | : No data available                            |                         |
| Flammability (solid, gas)               | : No data available                            |                         |
| Upper explosion limit                   | : No data available                            |                         |
| Lower explosion limit                   | : No data available                            |                         |

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|                                        |                                                            |
|----------------------------------------|------------------------------------------------------------|
| Vapor pressure                         | : No data available                                        |
| Relative vapor density                 | : No data available                                        |
| Relative density                       | : 1.5 - 1.8                                                |
| Water solubility                       | : soluble                                                  |
| Solubility in other solvents           | : No data available                                        |
| Partition coefficient: n-octanol/water | : No data available                                        |
| Autoignition temperature               | : No data available                                        |
| Thermal decomposition                  | : No data available                                        |
| 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 | : Do not mix with bleach or other chlorinated products – will cause chlorine gas.                                                                |
| Conditions to avoid                | : None known.                                                                                                                                    |
| Incompatible materials             | : Bases                                                                                                                                          |
| Hazardous decomposition products   | : Decomposition products may include the following materials:<br>Carbon oxides<br>Nitrogen oxides (NOx)<br>Sulfur oxides<br>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 eye irritation.                                      |
| Skin             | : Health injuries are not known or expected under normal use. |
| Ingestion        | : Health injuries are not known or expected under normal use. |
| Inhalation       | : Harmful if inhaled.                                         |
| 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. |
|------|---------------------------------------------------------------|

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|                  |                                                               |
|------------------|---------------------------------------------------------------|
| 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, Irritation            |
| Skin contact | : No symptoms known or expected. |
| Ingestion    | : No symptoms known or expected. |
| Inhalation   | : No information available.      |

##### 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

|                                   |                                           |
|-----------------------------------|-------------------------------------------|
| Acute oral toxicity               | : Acute toxicity estimate : 4,902 mg/kg   |
| Acute inhalation toxicity         | : 4 h Acute toxicity estimate : 8.11 mg/l |
| Acute dermal toxicity             | : No data available                       |
| Skin corrosion/irritation         | : Mild skin irritation                    |
| Serious eye damage/eye irritation | : Mild eye irritation                     |
| 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 | : sulphamic acid<br>LD50 Rat: > 2,000 mg/kg |
|                       | Urea<br>LD50 Rat: 8,200 mg/kg               |

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#### 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 : citric acid  
96 h LC50 Fish: > 100 mg/l

Urea  
96 h LC50 Fish: 127.9 mg/l

##### Ingredients

Toxicity to algae : sulphamic acid  
72 h EC50: 48 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.

RCRA - Resource Conservation and Recovery Authorization Act Hazardous : D002 (Corrosive)

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waste

#### 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.

#### Air transport (IATA)

UN number : 2967  
Description of the goods : Sulphamic acid  
Class : 8  
Packing group : III  
Environmentally hazardous : no

#### Sea transport (IMDG/IMO)

UN number : 2967  
Description of the goods : SULPHAMIC ACID  
Class : 8  
Packing group : III  
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

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.

**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 :

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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

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

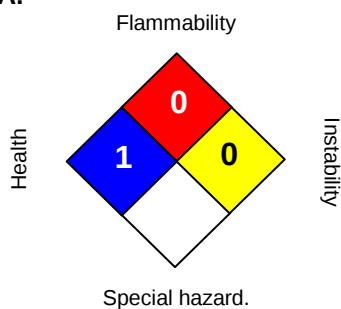
**Philippines Inventory of Chemicals and Chemical Substances (PICCS) :**  
not determined

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

### SECTION 16. OTHER INFORMATION

#### Product AS SOLD

##### NFPA:



##### HMIS III:

|                 |   |
|-----------------|---|
| HEALTH          | 1 |
| FLAMMABILITY    | 0 |
| PHYSICAL HAZARD | 0 |

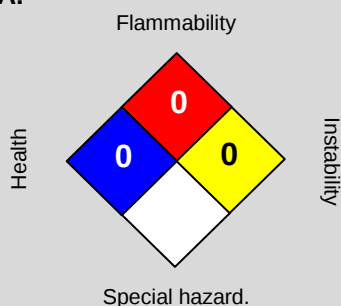
0 = not significant, 1 = Slight,  
2 = Moderate, 3 = High  
4 = Extreme, \* = Chronic

#### Product AT USE DILUTION

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#### NFPA:



#### HMIS III:

|                        |          |
|------------------------|----------|
| <b>HEALTH</b>          | <b>0</b> |
| <b>FLAMMABILITY</b>    | <b>0</b> |
| <b>PHYSICAL HAZARD</b> | <b>0</b> |

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

Issuing date : 11/17/2014  
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.