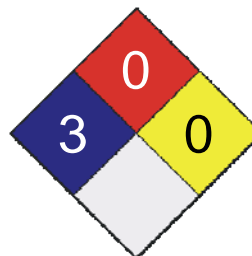


## 1. Product and Company Identification

**Product Name** LIME-A-WAY® Cleaner - Toggle  
**CAS #** Mixture  
**Product use** Remover  
**Distributed by** Reckitt Benckiser  
 Morris Corporate Center IV  
 399 Interpace Parkway  
 P.O. Box 225  
 Parsippany, NJ 07054-0225  
 In Case of Emergency: 1-800-338-6167  
 Transportation Emergencies: 24 Hour Number:  
 North America: CHEMTREC: 1-800-424-9300  
 Outside North America: 1-703-527-3887

| LEGEND<br>HMIS/NFPA |   |
|---------------------|---|
| Severe              | 4 |
| Serious             | 3 |
| Moderate            | 2 |
| Slight              | 1 |
| Minimal             | 0 |

|                     |     |
|---------------------|-----|
| Health              | / 3 |
| Flammability        | 0   |
| Physical Hazard     | 0   |
| Personal Protection | D   |



## 2. Hazards Identification

### Emergency overview

DANGER: CORROSIVE. HARMFUL IF SWALLOWED. Causes eye and skin damage. DO NOT get in eyes, on skin or on clothing. DO NOT ingest. DO NOT breathe vapor or mist. DO NOT mix with bleach or other household chemicals as harmful fumes may result. Handle with care, wear rubber gloves and eye protection. Use in well-ventilated areas.

KEEP OUT OF REACH OF CHILDREN.

### Potential short term health effects

#### Routes of exposure

Eye, Skin contact, Inhalation, Ingestion.

#### Eyes

Corrosive to the eyes and may cause severe damage including blindness. Causes eye damage.

#### Skin

Corrosive to skin. Causes skin damage. Not expected to be a skin sensitizer.

#### Inhalation

Vapors/mists may cause irritation to the respiratory tract. Avoid breathing vapors.

#### Ingestion

Harmful if swallowed.

### Target organs

Eyes. Skin.

### Chronic effects

The finished product is not expected to have chronic health effects.

### Signs and symptoms

The product causes burns of eyes, skin and mucous membranes.

### OSHA Regulatory Status

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

### Potential environmental effects

See section 12.

## 3. Composition / Information on Ingredients

| Ingredient(s) | CAS #     | Percent  |
|---------------|-----------|----------|
| Sulfamic acid | 5329-14-6 | 2.5 - 10 |

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## 4. First Aid Measures

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### First aid procedures

|                     |   |
|---------------------|---|
| <b>Eye contact</b>  | If in eyes, IMMEDIATELY rinse eyes thoroughly with water. Remove any contact lenses and continue rinsing eyes for at least 15 minutes. Get IMMEDIATE medical attention. |
| <b>Skin contact</b> | If on skin, IMMEDIATELY wash with soap and water. Get IMMEDIATE medical attention.  |
| <b>Inhalation</b>   | If inhaled, move person to fresh air.   |
| <b>Ingestion</b>    | DO NOT INDUCE VOMITING. If swallowed, rinse mouth and drink a glass of water. Call a Physician or Poison Control Center.  |

### Notes to physician

Treat patient symptomatically.  
Product is corrosive material. Probable mucosal damage may contraindicate the use of gastric lavage.

### General advice

If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Avoid contact with eyes and skin. Keep out of reach of children.

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## 5. Fire Fighting Measures

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### Flammable properties

Not flammable by OSHA criteria.

### Extinguishing media

**Suitable extinguishing media** Treat for surrounding material.

**Unsuitable extinguishing media** Not available

### Protection of firefighters

**Specific hazards arising from the chemical** Not available

**Protective equipment for firefighters** Firefighters should wear full protective clothing including self contained breathing apparatus.

### Hazardous combustion products

May include and are not limited to: Oxides of nitrogen. Oxides of sulphur.

### Explosion data

**Sensitivity to mechanical impact** Not available

**Sensitivity to static discharge** Not available

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## 6. Accidental Release Measures

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### Personal precautions

Keep unnecessary personnel away. Do not touch or walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak.

### Environmental precautions

Do not discharge into lakes, streams, ponds or public waters.

### Methods for containment

Stop leak if you can do so without risk. Prevent entry into waterways, sewers, basements or confined areas.

### Methods for cleaning up

Before attempting clean up, refer to hazard data given above. Small spills may be absorbed with non-reactive absorbent and placed in suitable, covered, labelled containers. Prevent large spills from entering sewers or waterways. Contact emergency services and supplier for advice. Never return spills to original containers for re-use.

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## 7. Handling and Storage

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### Handling

Ensure adequate ventilation.

**CORROSIVE TO EYES AND SKIN.**

Use good industrial hygiene practices in handling this material.

Do not get this material in your eyes, on your skin, or on your clothing. Do not ingest.

Do not breathe vapours or spray mist.

DO NOT mix with bleach or other household chemicals as harmful fumes may result.

NOTE: DO NOT use on natural marble, stone, terrazzo, polished or anodized aluminum, metallic or painted surfaces, coloured grout or counter tops. May etch some older or worn porcelain tubs and sinks or ceramic tile. If in doubt, test hidden areas first.

Avoid contact with wood, fabric and wallpaper.

Not for use on food contact surfaces.

DO NOT use on cookware, coffeemakers, tea kettles, humidifiers and washing machines.

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**Storage**

Keep out of the reach of children.  
 Keep this material away from food, drink and animal feed.  
 Store in original container in a cool, secure area inaccessible to children and pets.

## 8. Exposure Controls / Personal Protection

**Exposure limits**

| Ingredient(s) | Exposure Limits   |
|---------------|---|
| Sulfamic acid | <b>ACGIH-TLV</b><br>Not established<br><b>OSHA-PEL</b><br>Not established |

**Engineering controls**

General ventilation normally adequate.

**Personal protective equipment****Eye / face protection**

Avoid contact with eyes.  
 Wear safety glasses with side shields.  
 Emergency responders should wear full eye and face protection.

**Hand protection**

Rubber gloves. Confirm with a reputable supplier first.  
 Emergency responders should wear impermeable gloves.

**Skin and body protection**

Usual safety precautions while handling the product will provide adequate protection against injury or irritation.  
 Follow label directions carefully.  
 Emergency responders should wear impermeable clothing and footwear when responding to a situation where contact with the liquid is possible.

**Respiratory protection**

No special requirements under normal use conditions.  
 Avoid breathing mists or vapors.  
 Where exposure guideline levels may be exceeded, use an approved NIOSH respirator.  
 Emergency responders should wear self-contained breathing apparatus (SCBA) to avoid inhalation of vapours generated by this product during a spill or other clean-up operations.

**General hygiene considerations**

Use good industrial hygiene practices in handling this material.  
 When using do not eat or drink.  
 Washing with soap and water after use is recommended as good hygienic practice to prevent possible eye irritation from hand contact.

## 9. Physical and Chemical Properties

|   |                                   |
|---|-----------------------------------|
| <b>Appearance</b>                                     | Clear                             |
| <b>Color</b>  | Colorless                         |
| <b>Form</b>   | aqueous solution                  |
| <b>Odor</b>   | Fresh.                            |
| <b>Odor threshold</b>                                 | Not available                     |
| <b>Physical state</b>                                 | Liquid                            |
| <b>pH</b>   | 2.0 - 2.22 (Acidic)               |
| <b>Freezing point</b>                                 | Not available                     |
| <b>Boiling point</b>                                  | Not available                     |
| <b>Pour point</b>                                     | Not available                     |
| <b>Evaporation rate</b>                               | Not available                     |
| <b>Flash point</b>                                    | > 199.94 °F (> 93.3 °C) Tagliabue |
| <b>Auto-ignition temperature</b>                      | Not available                     |
| <b>Flammability limits in air, lower, % by volume</b> | Not available                     |
| <b>Flammability limits in air, upper, % by volume</b> | Not available                     |
| <b>Vapor pressure</b>                                 | Not available                     |
| <b>Vapor density</b>                                  | Not available                     |
| <b>Specific gravity</b>                               | 1.039 - 1.045                     |
| <b>Octanol/water coefficient</b>                      | Not available                     |
| <b>Solubility (H2O)</b>                               | Complete                          |

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## 10. Stability and Reactivity

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|   |  |
|---|--|
| <b>Reactivity</b>                         | This product may react with oxidizing agents.  |
| <b>Possibility of hazardous reactions</b> | Hazardous polymerization does not occur.   |
| <b>Chemical stability</b>                 | Stable under recommended storage conditions.   |
| <b>Conditions to avoid</b>                | Do not mix with other chemicals.<br>Exposure to moisture.                                    |
| <b>Incompatible materials</b>             | Caustics. Oxidizers.   |
| <b>Hazardous decomposition products</b>   | May include and are not limited to: Oxides of carbon. Oxides of nitrogen. Oxides of sulphur. |

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## 11. Toxicological Information

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### Component analysis - LC50

| Ingredient(s) | LC50 |
|---------------|------|
|---------------|------|

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|               |               |
|---------------|---------------|
| Sulfamic acid | Not available |
|---------------|---------------|

### Component analysis - Oral LD50

| Ingredient(s) | LD50 |
|---------------|------|
|---------------|------|

---

|               |   |
|---------------|---|
| Sulfamic acid | 1312 mg/kg mouse; 1050 mg/kg guinea pig; 3160 mg/kg rat |
|---------------|---|

### Effects of acute exposure

|            |  |
|------------|--|
| <b>Eye</b> | Corrosive to the eyes and may cause severe damage including blindness.<br>Causes eye damage. |
|------------|--|

|             |  |
|-------------|--|
| <b>Skin</b> | Corrosive to skin.<br>Causes skin damage.<br>Not expected to be a skin sensitizer. |
|-------------|--|

|                   |  |
|-------------------|--|
| <b>Inhalation</b> | Vapors/mists may cause irritation to the respiratory tract.<br>Avoid breathing vapors. |
|-------------------|--|

|                  |                       |
|------------------|-----------------------|
| <b>Ingestion</b> | Harmful if swallowed. |
|------------------|-----------------------|

|                      |  |
|----------------------|--|
| <b>Sensitization</b> | The finished product is not expected to have chronic health effects. |
|----------------------|--|

|                        |  |
|------------------------|--|
| <b>Chronic effects</b> | The finished product is not expected to have chronic health effects. |
|------------------------|--|

|                        |  |
|------------------------|--|
| <b>Carcinogenicity</b> | The finished product is not expected to have chronic health effects. |
|------------------------|--|

|                     |  |
|---------------------|--|
| <b>Mutagenicity</b> | The finished product is not expected to have chronic health effects. |
|---------------------|--|

|                             |  |
|-----------------------------|--|
| <b>Reproductive effects</b> | The finished product is not expected to have chronic health effects. |
|-----------------------------|--|

|                       |  |
|-----------------------|--|
| <b>Teratogenicity</b> | The finished product is not expected to have chronic health effects. |
|-----------------------|--|

|   |               |
|---|---------------|
| <b>Name of Toxicologically Synergistic Products</b> | Not available |
|---|---------------|

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## 12. Ecological Information

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|                    |           |
|--------------------|-----------|
| <b>Ecotoxicity</b> | See below |
|--------------------|-----------|

### Ecotoxicity - Freshwater Fish - Acute Toxicity Data

|               |           |  |
|---------------|-----------|--|
| Sulfamic acid | 5329-14-6 | 96 Hr LC50 Pimephales promelas: 14.2 mg/L [static] |
|---------------|-----------|--|

|                                    |               |
|------------------------------------|---------------|
| <b>Persistence / degradability</b> | Not available |
|------------------------------------|---------------|

|                                       |               |
|---------------------------------------|---------------|
| <b>Bioaccumulation / accumulation</b> | Not available |
|---------------------------------------|---------------|

|  |               |
|--|---------------|
| <b>Mobility in environmental media</b> | Not available |
|--|---------------|

|                              |               |
|------------------------------|---------------|
| <b>Environmental effects</b> | Not available |
|------------------------------|---------------|

|                         |               |
|-------------------------|---------------|
| <b>Aquatic toxicity</b> | Not available |
|-------------------------|---------------|

|                              |               |
|------------------------------|---------------|
| <b>Partition coefficient</b> | Not available |
|------------------------------|---------------|

|                                  |               |
|----------------------------------|---------------|
| <b>Chemical fate information</b> | Not available |
|----------------------------------|---------------|

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## 13. Disposal Considerations

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|                              |  |
|------------------------------|--|
| <b>Disposal instructions</b> | Dispose in accordance with all applicable regulations. |
|------------------------------|--|

|  |               |
|--|---------------|
| <b>Waste from residues / unused products</b> | Not available |
|--|---------------|

|                               |               |
|-------------------------------|---------------|
| <b>Contaminated packaging</b> | Not available |
|-------------------------------|---------------|

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## 14. Transport Information

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### U.S. Department of Transportation (DOT)

UN 3264, Corrosive liquid, acidic, inorganic,  
n.o.s.(Sulphamic acid), Class 8, PG II, Limited Quantity

### Transportation of Dangerous Goods (TDG - Canada)

UN 3264, Corrosive liquid, acidic, inorganic,  
n.o.s.(Sulphamic acid), Class 8, PG II, Limited Quantity

### IMDG (Marine Transport)

UN 3264, Corrosive liquid, acidic, inorganic,  
n.o.s.(Sulphamic acid), Class 8, PG II, Limited Quantity

### IATA/ICAO (Air)

UN 3264, Corrosive liquid, acidic, inorganic,  
n.o.s.(Sulphamic acid), Class 8, PG II

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## 15. Regulatory Information

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### Occupational Safety and Health Administration (OSHA)

29 CFR 1910.1200 hazardous chemical Yes

**US Federal regulations** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Product Registration: Product is compliant with CPSC regulatory guidelines; a specific registration is not required for this product.

### CERCLA (Superfund) reportable quantity

None

### Superfund Amendments and Reauthorization Act of 1986 (SARA)

**Hazard categories** Immediate Hazard - Yes  
Delayed Hazard - No  
Fire Hazard - No  
Pressure Hazard - No  
Reactivity Hazard - No

**Section 302 extremely hazardous substance** No

**Section 311 hazardous chemical** No

**Clean Air Act (CAA)** Not available

**Clean Water Act (CWA)** Not available

**State regulations** This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

### U.S. - New Jersey - Right to Know Hazardous Substance List

Sulfamic acid 5329-14-6 sn 1770

### Inventory status

| Country(s) or region        | Inventory name                                | On inventory (yes/no)* |
|-----------------------------|---|------------------------|
| United States & Puerto Rico | Toxic Substances Control Act (TSCA) Inventory | Yes                    |

A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

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## 16. Other Information

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**Disclaimer** This product should only be used as directed on the label and for the purpose intended. To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

**Further information** LIME-A-WAY® Cleaner - Toggle - 0268114v1.0

**Issue date** 23-May-2012

**Effective date** 15-May-2012

**Prepared by** Reckitt Benckiser Regulatory Department 800-333-3899

**Other information** For an updated MSDS, please contact the supplier/manufacturer listed on the first page of the document.