1. Product and Company Identification

Product Name: LIME-A-WAY® - Toilet Bowl Cleaner - Liquid

Manufacturer: Reckitt Benckiser
Morris Corporate Center IV
399 Interpace Parkway
P.O. Box 225
Parsippany, NJ 07054-0225

In Case of Emergency: 1-800-228-4722
Transportation Emergencies: 24 Hour Number:
North America: CHEMTREC: 1-800-424-9300
Outside North America: 1-703-527-3887

LEGEND
HMIS/NFPA

<table>
<thead>
<tr>
<th>Health</th>
<th>Flammability</th>
<th>Physical Hazard</th>
<th>Personal Protection</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>0</td>
<td>0</td>
<td>D</td>
</tr>
</tbody>
</table>

2. Hazards Identification

Emergency overview
DANGER -- CORROSIVE
Causes irreversible eye damage and skin burns. Do not get in eyes, on skin or on clothing. HARMFUL OR FATAL IF SWALLOWED. DO NOT ingest. Wear protective eyewear, gloves and protective clothing. Wash thoroughly with soap and water after handling. DO NOT breathe vapor or fumes. Use in well-ventilated areas. DO NOT mix with bleach or other household chemicals as harmful fumes may result. Fumes are corrosive to metal. Contains hydrochloric acid.

KEEP OUT OF REACH OF CHILDREN.

Potential short term health effects

Routes of exposure
Eye, Skin contact, Inhalation, Ingestion.

Eyes
Corrosive liquid.
Causes eye damage.
Do not get into eyes.

Skin
Corrosive liquid.
Causes skin damage.
Do not get on skin or clothing.
Not expected to be a skin sensitizer.

Inhalation
Do not breathe vapor or fumes.
Use only in a well ventilated area.
For occupational exposures, ensure adequate exhaust ventilation to control contaminant levels are below the TLV or PEL, or wear appropriate personal protective equipment (respirator).

Ingestion
Harmful if swallowed.
Contains hydrochloric acid.

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.
3. Composition / Information on Ingredients

<table>
<thead>
<tr>
<th>Ingredient(s)</th>
<th>CAS #</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrochloric acid</td>
<td>7647-01-0</td>
<td>10 - 20</td>
</tr>
<tr>
<td>Alcohols, C12-16, ethoxylated</td>
<td>68551-12-2</td>
<td>1 - 2.5</td>
</tr>
<tr>
<td>Ethoxylated aliphatic amines</td>
<td>61791-26-2</td>
<td>1 - 2.5</td>
</tr>
</tbody>
</table>

4. First Aid Measures

**First aid procedures**

**Eye contact**
If in eyes, IMMEDIATELY rinse eyes thoroughly with water. Remove any contact lenses and continue rinsing eyes for at least 15 minutes. Immediately call a physician or Poison Control Center.

**Skin contact**
If on skin, IMMEDIATELY wash with soap and water. Immediately call a physician or Poison Control Center.

**Inhalation**
If inhaled, move person to fresh air. Immediately call a physician or Poison Control Center for further advice.

**Ingestion**
If swallowed, do NOT induce vomiting. Rinse mouth and drink a glass of water. IMMEDIATELY call a Physician or Poison Control Center.

**Notes to physician**
Contains hydrochloric acid. 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.

5. Fire Fighting Measures

**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

6. Accidental Release Measures

**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.

**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 in original containers for re-use.
7. Handling and Storage

**Handling**
- Corrosive material.  
  **CORROSIVE TO EYES AND SKIN.**
- Use good industrial hygiene practices in handling this material. 
- Do not close toilet bowl lid while soaking. 
- Do not get this material in your eyes, on your skin, or on your clothing.

**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

<table>
<thead>
<tr>
<th>Exposure limits</th>
<th>Ingredient(s)</th>
<th>Exposure Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Alcohols, C12-16, ethoxylated</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>ACGIH-TLV</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Not established</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>OSHA-PEL</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Not established</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ethoxylated aliphatic amines</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>ACGIH-TLV</strong></td>
<td></td>
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<td></td>
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<tr>
<td></td>
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</tr>
<tr>
<td></td>
<td>Hydrochloric acid</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>ACGIH-TLV</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ceiling: 2 ppm</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>OSHA-PEL</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ceiling: 5 ppm</td>
<td></td>
</tr>
</tbody>
</table>

**Engineering controls**
- General ventilation normally adequate.

**Personal protective equipment**

- **Eye / face protection**
  - Avoid contact with eyes.
  - If splashes are likely to occur, wear: Wear chemical goggles and face shield.
  - Emergency responders should wear full eye and face protection.

- **Hand protection**
  - Wear impervious gloves where the potential for contact with the liquid is possible.
  - 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.
  - 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

<p>| Appearance | Clear.                                           |
| Color      | Green                                            |
| Form       | aqueous solution                                 |
| Odor       | Wintergreen                                      |
| Odor threshold | Not available                              |
| Physical state | Liquid                                   |
| pH         | &lt; 1 (Strongly acidic)                            |
| Freezing point | Not available                                |</p>
<table>
<thead>
<tr>
<th>Physical Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pour point</td>
<td>Not available</td>
</tr>
<tr>
<td>Boiling point</td>
<td>Not available</td>
</tr>
<tr>
<td>Flash point</td>
<td>&gt; 199.94 °F (&gt; 93.3 °C)</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not available</td>
</tr>
<tr>
<td>Flammability limits in air, lower, % by volume</td>
<td>Not available</td>
</tr>
<tr>
<td>Flammability limits in air, upper, % by volume</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapor density</td>
<td>Not available</td>
</tr>
<tr>
<td>Specific gravity</td>
<td>1.040 - 1.050</td>
</tr>
<tr>
<td>Octanol/water coefficient</td>
<td>Not available</td>
</tr>
<tr>
<td>Solubility (H2O)</td>
<td>Complete</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Not available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Viscous</td>
</tr>
</tbody>
</table>

### 10. Stability and Reactivity

**Chemical stability**
- Stable under recommended storage conditions.

**Conditions to avoid**
- Do not mix with other chemicals.
- Exposure to moisture.
- Corrosive to aluminum.
- Do not mix with chlorine bleach, or other cleaning and disinfecting chemicals.
- This product should not be used on or placed on toilet bowl lids, vanities, sinks, bathtubs, cabinets, counter tops, rugs, etc.

**Incompatible materials**
- Caustics, Oxidizers, Aluminum.

**Hazardous decomposition products**
- May include and are not limited to: Oxides of nitrogen, Oxides of sulphur.

**Possibility of hazardous reactions**
- Hazardous polymerization does not occur.

### 11. Toxicological Information

#### Component analysis - LC50

<table>
<thead>
<tr>
<th>Ingredient(s)</th>
<th>LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohols, C12-16, ethoxylated</td>
<td>Not available</td>
</tr>
<tr>
<td>Ethoxylated aliphatic amines</td>
<td>Not available</td>
</tr>
<tr>
<td>Hydrochloric acid</td>
<td></td>
</tr>
</tbody>
</table>

#### Component analysis - Oral LD50

<table>
<thead>
<tr>
<th>Ingredient(s)</th>
<th>LD50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohols, C12-16, ethoxylated</td>
<td>1380 mg/kg rat</td>
</tr>
<tr>
<td>Ethoxylated aliphatic amines</td>
<td>620 mg/kg rat</td>
</tr>
<tr>
<td>Hydrochloric acid</td>
<td>900 mg/kg rabbit; 700 mg/kg rat</td>
</tr>
</tbody>
</table>

**Effects of acute exposure**

<table>
<thead>
<tr>
<th>Exposure</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye</td>
<td>Corrosive liquid. Causes eye damage. Do not get into eyes.</td>
</tr>
<tr>
<td>Skin</td>
<td>Corrosive liquid. Causes skin damage. Do not get on skin or clothing. Not expected to be a skin sensitizer.</td>
</tr>
<tr>
<td>Inhalation</td>
<td>Do not breathe vapor or fumes. Use only in a well ventilated area. For occupational exposures, ensure adequate exhaust ventilation to control contaminant levels are below the TLV or PEL, or wear appropriate personal protective equipment (respirator).</td>
</tr>
<tr>
<td>Ingestion</td>
<td>Harmful if swallowed. Contains hydrochloric acid.</td>
</tr>
<tr>
<td>Sensitization</td>
<td>The finished product is not expected to have chronic health effects.</td>
</tr>
</tbody>
</table>
Chronic effects
The finished product is not expected to have chronic health effects.

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

ACGIH - Threshold Limit Values - Carcinogens
Hydrochloric acid 7647-01-0 A4 - Not Classifiable as a Human Carcinogen
IARC - Group 3 (Not Classifiable)
Hydrochloric acid 7647-01-0 Monograph 54 [1992]

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

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

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

12. Ecological Information

Ecotoxicity
Because of the low pH of this product, it would be expected to produce significant ecotoxicity upon exposure to aquatic organisms and aquatic systems.

Ecotoxicity - Freshwater Fish Species Data
<table>
<thead>
<tr>
<th>Chemical</th>
<th>EC50 or EC90</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrochloric acid</td>
<td>96 Hr LC50 Gambusia affinis: 282 mg/L [static]</td>
<td>Ecotoxicity - Freshwater Fish Species Data</td>
</tr>
</tbody>
</table>

Environmental effects Not available
Aquatic toxicity Not available
Persistence / degradability Not available
Bioaccumulation / accumulation Not available
Partition coefficient Not available
Mobility in environmental media Not available
Chemical fate information Not available

13. Disposal Considerations

Waste codes Not available
Disposal instructions Dispose in accordance with all applicable regulations.
Waste from residues / unused products Not available
Contaminated packaging Not available

14. Transport Information

U.S. Department of Transportation (DOT)

UN 1760 - Corrosive Liquid, N.O.S. (Hydrochloric Acid, Hydroxyethyl alkylamine), Class 8, PG II, Limited Quantity
Transportation of Dangerous Goods (TDG - Canada)

UN 1760 - Corrosive Liquid, N.O.S. (Hydrochloric Acid, Hydroxyethyl alkyamine), Class 8, PG II, Limited Quantity

IMDG (Marine Transport)

UN 1760 - Corrosive Liquid, N.O.S., (Contains Hydrochloric Acid and Hydroxyethyl alkyamine), Class 8, PG II, Limited Quantity

IATA/ICAO (Air)

UN 1760 - Corrosive Liquid, N.O.S., (Contains Hydrochloric Acid and Hydroxyethyl alkyamine), Class 8, PG II
### 15. Regulatory Information

**US Federal regulations**

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. CERCLA/SARA Hazardous Substances - Not applicable.

**Product Registration:** Not registered

<table>
<thead>
<tr>
<th>U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrochloric acid</td>
<td>7647-01-0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrochloric acid</td>
<td>7647-01-0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrochloric acid</td>
<td>7647-01-0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>U.S. - CERCLA/SARA - Section 313 - Emission Reporting</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrochloric acid</td>
<td>7647-01-0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>U.S. - CWA (Clean Water Act) - Hazardous Substances</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrochloric acid</td>
<td>7647-01-0</td>
</tr>
</tbody>
</table>

**Occupational Safety and Health Administration (OSHA)**

29 CFR 1910.1200 hazardous chemical: Yes

**CERCLA (Superfund) reportable quantity**

Hydrochloric acid: 5000.0000

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

<table>
<thead>
<tr>
<th>Hazard categories</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Immediate Hazard</td>
<td>Yes</td>
</tr>
<tr>
<td>Delayed Hazard</td>
<td>No</td>
</tr>
<tr>
<td>Fire Hazard</td>
<td>No</td>
</tr>
<tr>
<td>Pressure Hazard</td>
<td>No</td>
</tr>
<tr>
<td>Reactivity Hazard</td>
<td>No</td>
</tr>
</tbody>
</table>

| Section 302 extremely hazardous substance | No |

**Section 311 hazardous chemical**

Yes

**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. - California - 8 CCR Section 339 - Director's List of Hazardous Substances
Hydrochloric acid 7647-01-0 Present

U.S. - Illinois - Toxic Air Contaminants
Hydrochloric acid 7647-01-0 Present (aerosol)

U.S. - Louisiana - Reportable Quantity List for Pollutants
Hydrochloric acid 7647-01-0 5000 Lb RQ (applies to unauthorized emissions based on total mass emitted into or onto all media within any consecutive 24-hour period); 1000 lb RQ (applies to unauthorized emissions based on total mass emitted into the atmosphere)

U.S. - Massachusetts - Right To Know List
Hydrochloric acid 7647-01-0 Extraordinarily hazardous

U.S. - Minnesota - Hazardous Substance List
Hydrochloric acid 7647-01-0 Present

U.S. - New Jersey - Right to Know Hazardous Substance List
Hydrochloric acid 7647-01-0 sn 1012

U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances
Hydrochloric acid 7647-01-0 500 lb RQ (air); 100 lb RQ (land/water)

U.S. - North Carolina - Control of Toxic Air Pollutants
Hydrochloric acid 7647-01-0 0.7 mg/m3 (acute irritants)

U.S. - Ohio - Extremely Hazardous Substances - Threshold Quantities
Hydrochloric acid 7647-01-0 500 Lb TQ (gas only)

U.S. - Pennsylvania - RTK (Right to Know) List
Hydrochloric acid 7647-01-0 Environmental hazard

U.S. - Rhode Island - Hazardous Substance List
Hydrochloric acid 7647-01-0 Toxic; Flammable

U.S. - Texas - Tier II Chemical Reporting - Extremely Hazardous Substances - Reportable Quantities
Hydrochloric acid 7647-01-0 5000 lb RQ

U.S. - Texas - Tier II Chemical Reporting - Extremely Hazardous Substances - Threshold Planning Quantities
Hydrochloric acid 7647-01-0 500 Lb TPQ (gas)

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)

16. Other Information

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
51700-39700 - LIME-A-WAY® Toilet Bowl Cleaner Liquid - 16 oz. - 0253892
51700-39705 - LIME-A-WAY® Toilet Bowl Cleaner Liquid - 24 oz. - 0253892

Issue date
09-Mar-2010

Effective date
01-Mar-2010

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.