Section I - Product & Company Identification

Product identifier
Product name: SCALE & LIME REMOVER
Product form: Liquid
Other means of identification: LB520

Relevant identified uses of the substance or mixture: Liquid Acid Detergent

Details of the supplier of the safety data sheet
Manufacturer:
Diversified Chemical Products, Inc. 4124 B NW Riverside Street, Riverside, MO 64150
Phone: 816-472-5515
Emergency telephone number
Emergency number: CHEMTREC: 1-800-424-9300

Section II – Hazards Identification

Classification
Acute Toxicity, Oral Category 4
Serious eye damage/eye irritation Category 1
Skin corrosion/ irritation Category 1
Specific target organ toxicity – single exposure (Category 3), Respiratory tract irritation

Pictogram

Signal Word
Danger

Hazard Statements
Causes severe skin burns.
Causes serious eye damage.
Harmful if swallowed.
May cause respiratory irritation.

Precautionary Statements – Prevention
Avoid breathing fume/mist/vapors/spray.
Do not eat, drink or smoke when using this product
Use only outdoors or in a well ventilated area.
Wear protective gloves/protective clothing/eye protection/face protection
Wash face, hands and any exposed skin thoroughly after handling

**Precautionary Statements - Response**
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation occurs.
IF ON SKIN: Wash with plenty of soap and water. Get medical attention if irritation occurs.
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
Rinse mouth
Take off contaminated clothing and wash before reuse.

**Precautionary Statements - Storage**
Store in a well ventilated place, Keep container tightly closed keep cool.

**Precautionary Statements - Disposal**
Dispose of contents/container to an approved waste treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

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**Section III –Composition/Information on ingredients**

<table>
<thead>
<tr>
<th>Mixture</th>
<th>Product identifier</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrochloric Acid</td>
<td>(CAS No) 7647-01-0</td>
<td>20-30</td>
</tr>
</tbody>
</table>

Any concentration shown as a range is to protect confidentiality or is due to process variation.

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**Section IV – First Aid Measures**

**Inhalation**: Remove to fresh air. If breathing stops, provide artificial respiration. If symptoms persist, call a physician.

**Eye Contact**: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation persists.

**Ingestion**: Rinse mouth. Call a POISON CENTER or doctor/physician if you feel unwell.

**Skin Contact**: Remove contaminated clothing, wash with plenty of water. If skin irritation persists, call a physician.

**Most Important Symptoms and Effects, both Acute and Delayed**

**Symptoms**
May cause serious eye and skin burns, pain and severe corrosive skin damage. May include stinging, tearing, redness, swelling and blurred vision. Permanent eye damage including blindness could result. May cause respiratory irritation. Coughing.

**Indication of any Immediate Medical Attention and Special Treatment Needed**

**Note to Physicians**: Treat symptomatically.
Section V – Fire Fighting Measures

Suitable Extinguishing Media
Water spray, alcohol resistant foam, dry chemical or carbon dioxide.

Unsuitable Extinguishing Media
Do not use water jet as it will spread the fire.

Specific Hazards Arising from the Chemical
Hazardous gases may be formed.

Protective Equipment and Precautions for Firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, NIOSH (approved or equivalent) and full protective gear.

Section VI – Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures

Personal Precautions: Keep unnecessary personnel away and upwind of spill/leak. Use personal protective equipment as required. Avoid breathing vapors, mist or gas. Ensure adequate ventilation.

Methods and Material for Containment and Cleaning Up

Methods for Containment: Prevent further leakage or spillage if safe to do so. Prevent discharge to the environment. Dike the spilled material, where this is possible.

Methods for Cleaning Up: Use non-combustible material like vermiculite, sand or earth to soak up the product and place into a suitable container for later disposal.

Section VII – Handling & Storage

Precautions for Safe Handling

Advice on Safe Handling: Handle in accordance with good industrial hygiene and safety practice. Wash face, hands and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Use personal protection recommended in Section 8.

Conditions for Safe Storage, Including any Incompatibilities

Storage Conditions: Keep containers tightly closed in a dry, cool and well-ventilated place.

Section VIII – Exposure Controls/ Personal Protection

Exposure Guidelines

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS #</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrochloric Acid</td>
<td>7647-01-0</td>
<td>Ceiling 2 ppm</td>
<td>Ceiling 5 ppm</td>
<td>Ceiling 5 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>7 mg/m3</td>
<td>7 mg/m3</td>
</tr>
</tbody>
</table>
Appropriate Engineering Controls

Engineering Controls: Provide adequate ventilation, (typically 10 air changes per hour). Eye wash stations and emergency shower must be available when handling this product.

Individual Protection Measures, such as Personal Protective Equipment

Eye/Face Protection: Wear approved safety goggles and face shield.

Skin and Body Protection: Wear suitable chemical resistant protective gloves and clothing.

Respiratory Protection: Ensure adequate ventilation, especially in confined areas.

General Hygiene Considerations: Handle in accordance with good industrial hygiene and safety practice.

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Section IX – Physical & Chemical Properties

Information on Basic Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State</td>
<td>Liquid</td>
</tr>
<tr>
<td>Color</td>
<td>Blue</td>
</tr>
<tr>
<td>pH</td>
<td>&lt; 1</td>
</tr>
<tr>
<td>Melting Point/Freezing Point</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling Point/Boiling Range</td>
<td>100-110 °C (212-230 °F)</td>
</tr>
<tr>
<td>Flash Point</td>
<td>No data available</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (Solid, Gas)</td>
<td>n/a-liquid</td>
</tr>
<tr>
<td>Upper Flammable Limits</td>
<td>No data available</td>
</tr>
<tr>
<td>Lower Flammable Limits</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>No data available</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.11</td>
</tr>
<tr>
<td>Water Solubility</td>
<td>Soluble in Water</td>
</tr>
<tr>
<td>Solubility in Other Solvents</td>
<td>No data available</td>
</tr>
<tr>
<td>Partition Coefficient</td>
<td>No data available</td>
</tr>
<tr>
<td>Autoignition Temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Kinematic Viscosity</td>
<td>No data available</td>
</tr>
<tr>
<td>Dynamic Viscosity</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive Properties</td>
<td>Not an Explosive</td>
</tr>
<tr>
<td>Oxidizing Properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Odor</td>
<td>Strong pungent</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>No data available</td>
</tr>
</tbody>
</table>
Section X – Stability & Reactivity

Reactivity
Reacts violently with strong alkaline substances. May react with reducing agents.

Chemical Stability
Stable under recommended storage conditions.

Possibility of Hazardous Reactions
None known.

Conditions to Avoid
Do not mix with other chemicals. Avoid contact with incompatible materials.

Incompatible Materials
Water, bases, oxidizing agents, reducing agents, metals, amines, alkalis, organic compounds.

Hazardous Decomposition Products
Hydrogen Chloride gas.

Section XI - Toxicological information

Information on Likely Routes of Exposure

Product Information

Inhalation: Avoid breathing vapors or mists.

Eye Contact: Causes severe eye damage

Skin Contact: Causes severe skin corrosion. Avoid contact with skin.

Ingestion: May be harmful if swallowed.

This product as a whole has not been tested for acute toxicity; the following is based on component data:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS #</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalation LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrochloric Acid</td>
<td>7647-01-0</td>
<td>900 mg/kg (Rabbit)</td>
<td>1449 mg/kg (Mouse)</td>
<td>1108 ppm, 1 h (Mouse) 3124 ppm, 1 h (Rat)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Hydrochloric Acid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin corrosion/irritation</td>
<td>Causes severe skin burns and eye damage</td>
</tr>
<tr>
<td>Serious eye damage/irritiation</td>
<td>Causes serious eye damage</td>
</tr>
<tr>
<td>Respiratory or skin sensitization</td>
<td>Not a respiratory or skin sensitizer</td>
</tr>
<tr>
<td>Mutagenicity</td>
<td>No data available</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>Not considered a carcinogen.</td>
</tr>
<tr>
<td>Reproductive toxicity</td>
<td>Not expected to cause reproductive effects.</td>
</tr>
<tr>
<td>Specific target organ toxicity-Single exposure</td>
<td>May cause respiratory irritation.</td>
</tr>
<tr>
<td>Specific target organ toxicity-repeated exposure</td>
<td>Not classified.</td>
</tr>
<tr>
<td>Aspiration hazard</td>
<td>Not an aspiration hazard.</td>
</tr>
</tbody>
</table>
Delayed and Immediate Effects as well as Chronic Effects from Short and Long-term Exposure

**Carcinogenicity:** This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

**Numerical Measures of Toxicity:** Not determined

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**Section XII - Ecological information**

**Ecotoxicity**
There is no data available for this product as a whole.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS #</th>
<th>Algae/aquatic plants</th>
<th>Fish</th>
<th>Aquatic invertebrates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrochloric Acid</td>
<td>7647-01-0</td>
<td>No data available</td>
<td>Western mosquitofish (Gambusia affinis) 282 mg/l, 96 h</td>
<td>No data available</td>
</tr>
</tbody>
</table>

**Persistence and Degradability**
No data available

**Bioaccumulation**
No data available

**Mobility**
No data available

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**Section XIII - Disposal considerations**

**Waste Disposal Method**
Dispose of material in accordance with all Federal, State and local regulations. Local regulations may be more stringent than Federal or State. Avoid discharge to sewers or waterways.

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**Section XIV - Transport information**

**DOT Proper Shipping Description:**

**Non-Bulk:** NA1760, compounds, cleaning liquid, (Hydrochloric Acid), 8, PG II

**Bulk:** NA1760, compounds, cleaning liquid, (Hydrochloric Acid), 8, PG II

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**Section XV - Regulatory information**

**SARA Title III Section 311/312 (40CFR370):** Acute and chronic health hazard

**SARA Title III Section 313 (40CFR372):** No reportable components.

**RCRA Status (40CFR261.33):** No reportable components.

**TSCA Inventory Status:** Reported/included

**OSHA/NTP/IARC Carcinogen Status:** Not listed

**Canadian DSL Status:** reported/included

**Chemicals Known to the State of California to Cause Cancer or Reproductive Toxicity:**
This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

**U.S. State Right-to-Know Regulations**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>New Jersey</th>
<th>Massachusetts</th>
<th>Pennsylvania</th>
</tr>
</thead>
</table>

---
Section XVI - Other information

**HMIS ratings:** Health: 3  
Flammability: 0  
Reactivity: 1  
Indication of changes: Revision – 1  
Date Sheet Prepared: 09/03/2015  Other information: Author – EHS Administrator

The information herein is presented in good faith and believed to be correct as of the date hereof. However, the manufacturer makes no representation as to the completeness and accuracy thereof. Users must make their own determination as to the suitability of the product for their purposes prior to use.

No representations or warranty’s, either express or implied of merchantability, fitness for a particular purpose or of any other nature with respect to the product or to the information herein is made hereunder. The manufacturer shall in no event be responsible for any damages of whatsoever nature directly or indirectly resulting from the publication or use of or reliance upon information contained herein.

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