1. **Product and company identification**

Product Name: Vanish Descaler
UN/ID No.: UN1789 Hydrochloric Acid

**Recommended use of the chemical and restrictions on use**
Recommended Use: Hard water scale remover for Industrial and Commercial use only

**Supplier:** Butler Chemicals, Inc.
3070 E. Ceena CT.
Anaheim, CA. 92806

**Print date:** April 20, 2016

**Responsible name:** K.B.

**In case of emergency:**

**Hazardous emergency ― SPILL EMERGENCIES**
CALL INFOTRAC 1(800) 535-5053

**Product type:** Mixture

2. **Hazards identification**

**Appearance:** Yellow **Physical State:** Liquid **Odor:** Slight odor

**Classification**

<table>
<thead>
<tr>
<th>Classification</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Toxicity – Oral</td>
<td>Category 4</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>Category 1A</td>
</tr>
<tr>
<td>Serious eye damage/eye irritation</td>
<td>Category 1</td>
</tr>
</tbody>
</table>

**Signal Word:** Danger

**Hazard Statement**
May be fatal if swallowed. Harmful if swallowed
Causes severe skin burns and eye damage. Causes serious eye damage.
Harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.
May cause respiratory irritation
Harmful to aquatic life with long lasting effects.

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

**Precautionary Statements – Response**
Immediately call A POISON CENTER or doctor/physician
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing immediately call a POISON CONTROL or doctor/physician
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. Call physician or poison control center immediately. Chemical burns must be treated by a physician.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Rinse mouth. Do not induce vomiting.

Precautionary Statements – Storage
Store locked up
Store in a well-ventilated place. Keep container tightly closed

Precautionary Statements – Disposal
Disposed of contents/container in accordance with local/regional/national/international regulations.

### 3. Composition/information on ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrochloric Acid</td>
<td>7647-01-0</td>
<td>10-15</td>
</tr>
<tr>
<td>Sulfamic Acid</td>
<td>5326-14-6</td>
<td>5-10</td>
</tr>
<tr>
<td>Other components below reportable levels</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 4. First aid measures

**Eye contact:** Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Immediately call a POISON CENTER or doctor/physician.

**Skin contact:** If on Skin (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. Seek medical attention.

**Inhalation:** If Inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.

**Ingestion:** If Swallowed: rinse mouth. Do NOT induce vomiting. If vomiting occurs, keep head low so that stomach content doesn’t get into the lungs. Immediately call a POISON CENTER or doctor/physician.

**Symptoms:** Most important symptoms and effects: Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling and blurred vision. Permanent eye damage including blindness could result. Coughing.

**Indication of immediate medical attention and special treatment needed:** Provide general supportive measures and treat symptomatically. Chemical burns. Flush with water immediately. While flushing remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

**General information:** 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.

### 5. Fire-fighting measures

**Suitable Extinguishing media:** Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2)

**Non suitable Extinguishing Media:** Do not use water jet as an extinguisher, as this will spread the fire.

**Specific Hazards Arising from the Chemical:** During fire, gases hazardous to health may be formed.

**Special methods:** Use standard firefighting procedures and consider the hazard of other involved
General fire hazards: No unusual fire or explosion hazards note.

Fire fighting equipment: Move containers from fire area if you can do so without risk.

Special protective equipment for fire-fighters: Wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear must be worn in case of fire.

6. Accidental release measures

Personal precautions: Keep unnecessary personnel away. Keep people away from Use personal protective equipment as required during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of SDS.

Environmental precautions: Never return spills to original containers for re-use. Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information. See Section 13, Disposal considerations, for additional information.

Methods for cleanup and containment of material

Methods of containment: Prevent further leakage or spillage if safe to do so.

Large spill: Stop the flow of material, if this is without risk. Kike the spilled material, where this is possible. Cover the plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small spill: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

7. Handling and storage

Handling: Handle in accordance with good industrial hygiene and safety practice. Use personal protection recommended in Section 8. Avoid contact with skin, eyes or clothing. Wash face, hands, and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Do not taste or swallow. Use only outdoors or in a well-ventilated area. Avoid prolonged exposure. Do not breathe dust/fume/gas/mist/vapors/spray. Observe good industrial hygiene practices.

Storage: Keep container tightly closed and store in a cool, dry and well-ventilated place. Store locked up.

Incompatible Materials: Amines. See section 10 of the SDS.

8. Exposure controls/personal protection

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrochloric Acid</td>
<td>Ceiling</td>
<td>7 mg/m3</td>
</tr>
</tbody>
</table>

US. ACGIH Threshold Limit Values

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrochloric Acid</td>
<td>Ceiling</td>
<td>2 ppm</td>
</tr>
</tbody>
</table>

US. NIOSH: Pocket guide to Chemical Hazards
Vanish Descaler SDS

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrochloric Acid</td>
<td>Ceiling</td>
<td>7 mg/m³</td>
</tr>
<tr>
<td>(CAS 7647-01-0)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Biological limit values**

No biological exposure limits noted for the ingredient(s).

**Appropriate Engineering Controls**

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

**Individual-protection measures, such as personal protective equipment**

**Eye/Face Protection**

Wear safety glasses with side shield (or goggles) and a face shield.

**Skin and Body Protection**

Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier. Wear appropriate chemical resistant clothing.

**Respiratory Protection**

Ensure adequate ventilation, especially in confined areas. In case of inadequate ventilation wear respiratory protection. Approved/certified dust respirator or equivalent.

**General Hygiene considerations**

Do not eat, drink or smoke when using this product. Wash contaminated clothing before reuse. Wash face, hands and any exposed skin thoroughly after handling. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

**9. Physical and chemical properties**

<table>
<thead>
<tr>
<th>Physical state</th>
<th>Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiling Point</td>
<td>&gt;100 °C</td>
</tr>
<tr>
<td>Color</td>
<td>Yellow</td>
</tr>
<tr>
<td>pH</td>
<td>1.0</td>
</tr>
<tr>
<td>Specific Gravity (H2O=1)</td>
<td>1.11</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>Soluble</td>
</tr>
<tr>
<td>% Volatiles by volume</td>
<td>60-70% (water)</td>
</tr>
<tr>
<td>Vapor pressure @ 20°C</td>
<td>Unknown</td>
</tr>
<tr>
<td>Evaporation rate (Butyl Acetate =1):</td>
<td>&lt;1</td>
</tr>
</tbody>
</table>

**10. Stability reactivity**

**Stability**

Stable under recommended storage conditions

**Hazardous polymerization**

Hazardous polymerization does not occur

**Conditions to avoid**

Contact with incompatible materials. Excessive heat. Avoid direct sunlight.

**Materials to avoid**

Amines, Hydrogen chloride gas

**Hazardous decomposition products**

None known based on information sheet.

**11. Toxicological information**

**Information on likely routes of exposure**

<table>
<thead>
<tr>
<th>Eye Contact</th>
<th>Causes serious eye damage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin Contact</td>
<td>Causes severe skin burns</td>
</tr>
<tr>
<td>Inhalation</td>
<td>May cause irritation to the respiratory system. Prolonged inhalation may be harmful</td>
</tr>
</tbody>
</table>
Ingestion
Causes digestive tract burns. Harmful if swallowed

Symptoms related to the physical, chemical and toxicological characteristics
Burning pain and severe corrosive skin damage. Causes serious eye damage.
Symptoms may include stinging, tearing, redness, swelling, and blurred vision.
Permanent eye damage including blindness could result. Coughing.

Information on toxicological effects

Acute toxicity
Harmful if swallowed

Chronic effects
Prolonged inhalation may be harmful

Reproductive toxicity
This product is not expected to cause reproductive or developmental effects.

Chronic Toxicity: Unknown
Carcinogenicity: None

12. Ecological information

Ecotoxicity
This product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment

13. Disposal considerations

Waste disposal:
The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a license waste contactor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contract with soil, waterways, drains and sewers.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

14. Transport information

Note:
Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

*When shipped in containers of 32 oz. or less this material may be reclassified in accordance with DOT regulations 49CFR173.154 as: Limited Quantity.

<table>
<thead>
<tr>
<th>Regulatory Information</th>
<th>UN number</th>
<th>Proper shipping name</th>
<th>Class</th>
<th>PG*</th>
<th>Additional information</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOT Classification</td>
<td>UN1789</td>
<td>Hydrochloric Acid Solution</td>
<td>8</td>
<td>II</td>
<td>32 oz Bottles, ORM-D-Limited Quantity</td>
</tr>
</tbody>
</table>

*PG: Packing group

15. Regulatory information

U.S. California Proposition 65
California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

16. Other information

<table>
<thead>
<tr>
<th>HMIS</th>
<th>Health Hazards</th>
<th>Flammability</th>
<th>Reactivity</th>
<th>Personal Protection</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>C</td>
</tr>
</tbody>
</table>

Indicates information that has changed from previously issued version.

Disclaimer
The information provided in the 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and in 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.

End of Safety Data Sheet