Material Safety Data Sheet

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: Swisher Rust Control
Product code: 42147-5
Reference number(s): 42147-15/42147-55
UN/ID No: UN2817
Recommended Use: Laundry Sour

Distributor:
Swisher Hygiene Inc.
4725 Piedmont Row Drive,
Suite 400,
Charlotte, NC 28210

Chemical Emergency Phone Number: 800-424-9300 (Chemtrec)
Company Emergency Phone Number: 800-444-4138

2. HAZARDS IDENTIFICATION

Emergency Overview
This product contains substances which at their given concentration, are considered to be hazardous to health.

Appearance: Clear Liquid
Physical state: Liquid
Odor: Odorless

Potential Health Effects

Acute toxicity

- **Eyes**: Causes severe burns that result in damage to the eyes and possibly blindness.
- **Skin**: Corrosive, may cause permanent damage. Very toxic in contact with skin.
- **Inhalation**: Inhalation of fumes may result in irritation of the nose, throat, and respiratory tract.
- **Ingestion**: Causes burns to the mouth, throat, and digestive tract. If ingested, ammonium bifluoride may disrupt the body’s electrolyte balance by binding essential metal ions such as magnesium and calcium with may disrupt normal health and nervous system functions. Effects may be delayed as much as 4 hours after exposure.

Chronic Effects

- Skin: Permanent damage.
- Ingestion: Can cause death.

Aggravated Medical Conditions

Persons with pre-existing skin disorders may be more susceptible to irritating effects.

Environmental hazard

See Section 12 for additional Ecological Information

3. COMPOSITION/INFORMATION ON INGREDIENTS
This product is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonium bifluoride</td>
<td>1341-49-7</td>
<td>0</td>
</tr>
<tr>
<td>Hydrofluoric acid</td>
<td>UN1790</td>
<td>0</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

**Eye contact**
Immediately flush with plenty of cool water under low pressure. Flush continuously for at least 15 minutes. Hold eyelids open and move eye while flushing. Seek medical attention immediately. If possible, apply ice water compresses during transport.

**Skin contact**
Responders should put on appropriate personal protective equipment to protect themselves before assisting victims. Remove all contaminated clothing. Immediately flush the affected area for five minutes with large amounts of water. While the victim is being rinsed with water, have someone call to arrange medical treatment. Immediately after flushing with water, start massaging 2.5% calcium glucagon gel into the burn site. Responders must wear gloves when applying the gel to prevent secondary HF burns to their hands. Apply the gel every 15 minutes. Call a physician immediately.

**Inhalation**
Remove to fresh air. Seek medical attention immediately. Inhalation of HF fumes may cause swelling in the respiratory tract up to 24 hrs after exposure. Persons who have inhaled HF fumes may need prophylactic oxygen treatment and should be seen by a physician as soon as possible.

**Ingestion**
Never give anything by mouth to an unconscious person. DO NOT INDUCE VOMITING. If conscious give large quantities of water. If vomiting occurs spontaneously, keep airway clear. Seek medical attention Immediately!

**Notes to physician**
Treat symptomatically

5. FIRE-FIGHTING MEASURES

**Flammable Properties**
Not flammable

**Flash point**
Flash point > 200 °F

**Suitable Extinguishing Media**
Product is not combustible.

**Explosion Data**
Sensitivity to Mechanical Impact: none
Sensitivity to Static Discharge: none

**Specific hazards arising from the chemical**
For fires in areas where this material is stored, do not enter any enclosed or confined space without proper protective equipment, including self-contained breathing apparatus.

**Protective Equipment and Precautions for Firefighters**
Thermal decomposition can lead to release of irritating gases and vapors.

<table>
<thead>
<tr>
<th>NFPA</th>
<th>Health Hazard</th>
<th>Flammability</th>
<th>Stability</th>
<th>Physical and chemical hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>Physical and chemical hazards</td>
</tr>
<tr>
<td>HMIS</td>
<td>Health Hazard</td>
<td>3</td>
<td>0</td>
<td>Physical Hazard 0</td>
</tr>
<tr>
<td></td>
<td>Physical Hazard</td>
<td>0</td>
<td>0</td>
<td>Personal protection</td>
</tr>
</tbody>
</table>

6. ACCIDENTAL RELEASE MEASURES

**Personal precautions**
Ensure adequate ventilation
Environmental precautions
Try to prevent the material from entering drains or water courses

Methods for Containment
Prevent further leakage or spillage if safe to do so

Methods for cleaning up
Earthen dikes may be constructed to contain the spill. Cover contaminated area with sodium bicarbonate or a mixture of equal parts soda ash and slaked lime. Dispose of in a manner approved by local, state, and federal regulations. Contains no phosphates.

7. HANDLING AND STORAGE

Advice on safe handling
Handle in accordance with good industrial hygiene and safety practice

Technical measures/Storage conditions
Store in a cool, well-ventilated area away from alkalies and chlorine containing compounds.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines
Review Section 3 & 4 for Exposure Guidelines.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH IDLH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonium bifluoride</td>
<td>TWA: 2.5 mg/m³ F</td>
<td>TWA: 2.5 mg/m³ F</td>
<td>TWA: 2.5 mg/m³ F</td>
</tr>
</tbody>
</table>

Engineering Measures
Showers
Eyewash stations
Ventilation systems

Personal Protective Equipment Institutional Environment
Eye/Face Protection
Safety glasses are suggested when using this product in heavy use and institutional environments.

Consumer Environments
Care should be taken to avoid Eye contact.

Skin and body protection
Rubber gloves

Respiratory protection
Unnecessary in open institutional environment.

Hygiene measures
Practice good personal hygiene. Wash after handling.

Personal Protective Equipment Industrial Environment
Eye/Face Protection
Splash-proof chemical goggles or face shield.

Skin and body protection
Impervious rubber, alkali-proof protective gloves Impervious rubber boots & apron.

Respiratory protection
If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

Hygiene measures
Practice good personal hygiene. Wash after handling. Shower at end of work period Practice good personal hygiene. Wash after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties
Property                  | Values                  | Remarks/Methods                         |
--------------------------|-------------------------|-----------------------------------------|
Physical state            | liquid                  | Odor Odorless                           |
Appearance                | Clear Liquid            | Odor Threshold No information available  |
Color                     | colorless               |                                        |
Freezing Point            |                         |                                        |
Melting/freezing point    |                         |                                        |
phH                       |                         |                                        |
10. STABILITY AND REACTIVITY

Stability
Stable

Incompatible products
Chlorites, Combustible Solids, Organic Peroxides, Certain Metals, Strong Alkalies

Conditions to Avoid
None known based on information supplied

Hazardous Decomposition Products
None reasonably foreseen.

Hazardous Polymerization
Hazardous polymerization does not occur

11. TOXICOLOGICAL INFORMATION

Acute toxicity
Product Information
Product does not present an acute toxicity hazard based on known or supplied information.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LD50 Oral (mg/kg) (Species)</th>
<th>LD50 Dermal (mg/kg) (Species)</th>
<th>LC50 Inhalation (mg/L)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonium bifluoride</td>
<td>130 (Rat)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Chronic toxicity

Skin: Permanent damage.
Ingestion: Can cause death.
12. ECOLOGICAL INFORMATION

Ecotoxicity
The environmental impact of this product has not been fully investigated

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods
This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements

Contaminated packaging
Do not re-use empty containers

14. TRANSPORT INFORMATION

Note
UN2817, Ammonium Hydrogeniflouride Solution, 8, PG II

Dot
Proper shipping name
UN2817, Ammonium Hydrogeniflouride Solution, 8, PG II
Hazard class
8
UN/ID No
UN2817
Packing Group
II

15. REGULATORY INFORMATION

International Inventories
TSCA

TSCA
Clean Water Act
This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CWA - Reportable Quantities</th>
<th>CWA - Toxic Pollutants</th>
<th>CWA - Priority Pollutants</th>
<th>CWA - Hazardous Substances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonium bifluoride</td>
<td>100 lb</td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

CERCLA
This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Hazardous Substances RQs</th>
<th>Extremely Hazardous Substances RQs</th>
<th>RQ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonium bifluoride</td>
<td>100 lb</td>
<td></td>
<td>RQ 100 lb final RQ RQ 45.4 kg final RQ</td>
</tr>
</tbody>
</table>

U.S. State Regulations

California Proposition 65
This product does not contain any Proposition 65 chemicals.

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

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and
the MSDS contains all the information required by the CPR.

16. OTHER INFORMATION

Prepared By
Swisher Hygiene Inc.
4725 Piedmont Row Drive
Suite 400
Charlotte, NC 28210

Issuing date 29-Dec-2011
Revision Date 29-Dec-2011
Revision Note No information available
Disclaimer
The information provided on this MSDS 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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not
to be considered as 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 material or in any process, unless specified in the text

End of Material Safety Data Sheet