1. Product and Company Identification

Product name: Y-SLIP
CAS #: Mixture
Product use: Floor care
Manufacturer information: Canadian Mill Supply Co. Ltd.
120 McLevin Ave., Unit 2
Scarborough, ON M1B 3E9 CA
Phone: 1-416-752-3010
Emergency Phone: 1-613-996-6666 (CANUTEC)

2. Hazards Identification

Emergency overview: DANGER CAUSES EYE BURNS. CAUSES SKIN BURNS.

Potential short term health effects

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

Eyes: Causes chemical burns. May cause blindness.
Skin: Causes chemical burns. May be absorbed through the skin.
Inhalation: May cause respiratory tract irritation.
Ingestion: Harmful if swallowed. May cause chemical burns to mouth, throat and stomach.

Target organs: Eyes, Skin, Respiratory system.

Chronic effects: Prolonged or repeated exposure to dilutions can cause drying, defatting and dermatitis. Exposure to fluorides over the years may produce an embrittlement and densification of bones, and an increased calcification of ligaments and vertebrae resulting in spinal stiffness.

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

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS #</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonium bifluoride</td>
<td>1341-49-7</td>
<td>1 - 5</td>
</tr>
</tbody>
</table>

4. First Aid Measures

First aid procedures

Eye contact: Immediately flush with cool water. Remove contact lenses, if applicable, and continue flushing for 15 minutes. Obtain medical attention immediately.

Skin contact: Immediately flush with cool water for 15 minutes while removing contaminated clothing and shoes. Discard or wash well before reuse. Obtain medical advice immediately.

Inhalation: If symptoms develop move victim to fresh air. If symptoms persist, obtain medical attention.

Ingestion: Do not induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Never give anything by mouth if victim is unconscious, or is convulsing. Obtain medical attention.

Notes to physician: Symptoms may be delayed.

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 WHMIS/OSHA criteria.
### 6. Accidental Release Measures

<table>
<thead>
<tr>
<th>Personal precautions</th>
<th>Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental precautions</td>
<td>Do not discharge into lakes, streams, ponds or public waters.</td>
</tr>
<tr>
<td>Methods for containment</td>
<td>Stop leak if you can do so without risk. Prevent entry into waterways, sewers, basements or confined areas.</td>
</tr>
<tr>
<td>Methods for cleaning up</td>
<td>Should not be released into the environment. 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.</td>
</tr>
</tbody>
</table>

### 7. Handling and Storage

#### Handling

**DANGER -- CORROSIVE**

Use good industrial hygiene practices in handling this material. Do not get in eyes, on skin or on clothing. Keep container tightly closed. Wash thoroughly after handling.

#### Storage

Keep out of the reach of children. Store in a closed container away from incompatible materials.

### 8. Exposure Controls/Personal Protection

#### Exposure limits

Contains no substances with occupational exposure limit values.

#### Engineering controls

General ventilation normally adequate.

#### Personal protective equipment

- **Eye / face protection**
  Wear chemical goggles.
- **Hand protection**
  Rubber gloves. Confirm with a reputable supplier first.
- **Skin and body protection**
  As required by employer code. Rubber apron recommended.
- **Respiratory protection**
  Where exposure guideline levels may be exceeded, use an approved NIOSH respirator.
- **General hygiene considerations**
  Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink. Wash hands before breaks and immediately after handling the product.

### 9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Appearance</th>
<th>Clear</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>Pink</td>
</tr>
<tr>
<td>Form</td>
<td>Liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>Pungent</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>Not available.</td>
</tr>
<tr>
<td>Physical state</td>
<td>Liquid.</td>
</tr>
<tr>
<td>pH</td>
<td>4.2</td>
</tr>
</tbody>
</table>
Freezing point: Not available.
Boiling point: Not available.
Pour point: Not available.
Evaporation rate: 0.4 (Ether = 1)
Flash point: Not available.
Auto-ignition temperature: Not available.
Flammability limits in air, upper, % by volume: Not available.
Flammability limits in air, lower, % by volume: Not available.
Vapor pressure: Not available.
Vapor density: Not available.
Specific gravity: 1.01 @ 21°C
Partition coefficient (n-octanol/water): Not available.
Solubility (water): Complete
Relative density: Not available.
Viscosity: Water thin
VOC: Not available
Percent volatile: Not available

10. Stability and Reactivity

Reactivity: This product reacts with acids. This product may react with strong bases.
Possibility of hazardous reactions: Hazardous polymerization does not occur.
Chemical stability: Stable under recommended storage conditions.
Conditions to avoid: Do not mix with other chemicals.
Hazardous decomposition products: May include and are not limited to: Oxides of carbon. Oxides of nitrogen. Ammonia. Hydrogen fluoride.

11. Toxicological Information

Toxicological data

<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonium bifluoride (CAS 1341-49-7)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rat</td>
<td>130 mg/kg</td>
</tr>
<tr>
<td>Chronic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rat</td>
<td>60 mg/kg</td>
</tr>
</tbody>
</table>

Effects of acute exposure

- **Eye contact**: Causes chemical burns. May cause blindness.
- **Skin contact**: Causes chemical burns. May be absorbed through the skin.
- **Inhalation**: May cause respiratory tract irritation.
- **Ingestion**: Harmful if swallowed. May cause chemical burns to mouth, throat and stomach.
- **Sensitization**: Non-hazardous by WHMIS/OSHA criteria.
- **Chronic effects**: Exposure to fluorides over the years may produce an embrittlement and densification of bones, and an increased calcification of ligaments and vertebrae resulting in spinal stiffness.
- **Carcinogenicity**: Non-hazardous by WHMIS/OSHA criteria.

**ACGIH Carcinogens**

| Ammonium bifluoride (CAS 1341-49-7) | A4 Not classifiable as a human carcinogen. |
IARC Monographs. Overall Evaluation of Carcinogenicity
Ammonium bifluoride (CAS 1341-49-7) Volume 27, Supplement 7 - 3 Not classifiable as to carcinogenicity to humans.

**Mutagenicity**  
Non-hazardous by WHMIS/OSHA criteria.

**Reproductive effects**  
Non-hazardous by WHMIS/OSHA criteria.

**Teratogenicity**  
Non-hazardous by WHMIS/OSHA criteria.

**Name of Toxicologically Synergistic Products**  
Not available.

### 12. Ecological Information

**Ecotoxicity**  
Components of this product have been identified as having potential environmental concerns.

**Persistence and degradability**  
Not available.

**Bioaccumulation / Accumulation**  
Not available.

**Mobility in environmental media**  
Not available.

**Environmental effects**  
Harmful to aquatic life.

**Aquatic toxicity**  
Not available.

**Partition coefficient**  
Not available.

**Chemical fate information**  
Not available.

### 13. Disposal Considerations

**Disposal instructions**  
Review federal, state/provincial, and local government requirements prior to disposal.

**Waste from residues / unused products**  
Not available

**Contaminated packaging**  
Not available

### 14. Transport Information

**U.S. Department of Transportation (DOT)**
- **Basic shipping requirements:**
  - **UN number**: UN3264
  - **Proper shipping name**: Corrosive liquid, acidic, inorganic, n.o.s. (Ammonium bifluoride RQ = 3333 lbs)
  - **Hazard class**: 8
  - **Packing group**: III
  - **Special provisions**: IB3, T7, TP1, TP28
  - **Packaging exceptions**: 154

**Transportation of Dangerous Goods (TDG - Canada)**
- **Basic shipping requirements:**
  - **UN number**: UN3264
  - **Proper shipping name**: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Ammonium bifluoride)
  - **Hazard class**: 8
  - **Packing group**: III
  - **Special provisions**: 16

DOT
## 15. Regulatory Information

### Canadian federal regulations
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

#### Canada CEPA Schedule I: Listed substance
- Ammonium bifluoride (CAS 1341-49-7) Listed.

#### Canada WHMIS Ingredient Disclosure: Threshold limits
- Ammonium bifluoride (CAS 1341-49-7) 1 %

### WHMIS status
- Controlled

### WHMIS classification
- Class D - Division 2A, Class E - Corrosive Material

### WHMIS labeling

### Occupational Safety and Health Administration (OSHA)

<table>
<thead>
<tr>
<th>29 CFR 1910.1200</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>hazardous chemical</td>
<td></td>
</tr>
</tbody>
</table>

### US federal regulations
All components are on the U.S. EPA TSCA Inventory List. This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

#### US EPCRA (SARA Title III) Section 313 - Toxic Chemical: De minimis concentration
- Ammonium bifluoride (CAS 1341-49-7) 1.0 %

#### US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance
- Ammonium bifluoride (CAS 1341-49-7) Listed.

#### TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
Not regulated.

#### US CWA Section 311 Hazardous Substances: Listed substance
- Ammonium bifluoride (CAS 1341-49-7) Listed.

#### CERCLA Hazardous Substance List (40 CFR 302.4)
- Ammonium bifluoride (CAS 1341-49-7) Listed.

### Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)
Not regulated.

#### Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List
Not regulated.

#### CERCLA (Superfund) reportable quantity
- Ammonium bifluoride: 100

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

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

#### State regulations
This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.
US - California Hazardous Substances (Director's): Listed substance
    Ammonium bifluoride (CAS 1341-49-7) Listed.
US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance
    Not listed.
    Ammonium bifluoride (CAS 1341-49-7) Listed.
US - Louisiana Spill Reporting: Listed substance
    Ammonium bifluoride (CAS 1341-49-7) Listed.
US - New Jersey RTK - Substances: Listed substance
    Ammonium bifluoride (CAS 1341-49-7) Listed.
    Ammonium bifluoride (CAS 1341-49-7) Listed.
US - North Carolina Toxic Air Pollutants: Listed substance
    Ammonium bifluoride (CAS 1341-49-7) Listed.
US - Texas Effects Screening Levels: Listed substance
    Ammonium bifluoride (CAS 1341-49-7) Listed.
US. Massachusetts RTK - Substance List
    Ammonium bifluoride (CAS 1341-49-7) Listed.
US. Pennsylvania RTK - Hazardous Substances
    Ammonium bifluoride (CAS 1341-49-7) Listed.
US. Rhode Island RTK
    Ammonium bifluoride (CAS 1341-49-7) Listed.

Inventory status

<table>
<thead>
<tr>
<th>Country(s) or region</th>
<th>Inventory name</th>
<th>On inventory (yes/no) *</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada</td>
<td>Domestic Substances List (DSL)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Non-Domestic Substances List (NDSSL)</td>
<td>No</td>
</tr>
<tr>
<td>United States &amp; Puerto Rico</td>
<td>Toxic Substances Control Act (TSCA) Inventory</td>
<td>Yes</td>
</tr>
</tbody>
</table>

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

16. Other Information

LEGEND

HEALTH * | 4  
FLAMMABILITY | 0  
PHYSICAL HAZARD | 0  
PERSONAL PROTECTION | X  

Disclaimer

Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.

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Effective date 31-October-2013
Expiry date 31-October-2016
Prepared by Dell Tech Laboratories, Ltd. Phone: (519) 858-5021
Other information

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

This MSDS conforms to the ANSI Z400.1/Z129.1-2010 Standard.