1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

GHS product identifier

Product Name Final Plus

Other means of identification

Product Code(s) 7938
UN-Number UN3264
Synonyms None

Recommended use of the chemical and restrictions on use

Recommended Use Laundry Neutralizer
Uses advised against No information available

Supplier's details

Supplier Address
Sunburst Chemicals, Inc.
220 W. 86th St.
Bloomington, MN 55420
TEL: 952-884-3144

Emergency telephone number

Emergency Telephone Number 1-866-303-6943

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous according to the OSHA Hazard Communication Standard 2012 (29 CFR 1910.1200)

<table>
<thead>
<tr>
<th>Hazard Statement</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Oral Toxicity</td>
<td>Category 4</td>
</tr>
<tr>
<td>Skin Corrosion/Irritation</td>
<td>Category 1 Subcategory 1B</td>
</tr>
<tr>
<td>Serious Eye Damage/Eye Irritation</td>
<td>Category 1</td>
</tr>
</tbody>
</table>

GHS Label elements, including precautionary statements

Emergency Overview

Signal Word Danger
Hazard Statements
• Harmful if swallowed
• Causes severe skin burns and eye damage
Appearance: Clear
Physical State: Liquid
Odor: Odorless

Precautionary Statements

Prevention
• Wash face, hands and any exposed skin thoroughly after handling
• Do not eat, drink or smoke when using this product
• Do not breathe dust/fume/gas/mist/vapors/spray
• Wear protective gloves/protective clothing/eye protection/face protection

General Advice
• Immediately call a POISON CENTER or doctor/physician

Eyes
• IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
• Immediately call a POISON CENTER or doctor/physician.

Skin
• IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
• Wash contaminated clothing before reuse

Inhalation
• IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

Ingestion
• IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
• Rinse mouth
• Do NOT induce vomiting

Storage
• Store locked up

Disposal
• Dispose of contents/container to an approved waste disposal plant

Hazard Not Otherwise Classified (HNOC)
Not applicable

Other information
Toxic to aquatic life

No information available.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No</th>
<th>Weight %</th>
<th>Trade secret</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phosphoric acid</td>
<td>7664-38-2</td>
<td>15-40</td>
<td>*</td>
</tr>
<tr>
<td>Ammonium bifluoride</td>
<td>1341-49-7</td>
<td>3 -7</td>
<td>*</td>
</tr>
</tbody>
</table>

*The exact percentage (concentration) of composition has been withheld as a trade secret.*
4. FIRST AID MEASURES

Description of necessary first-aid measures

General Advice
Immediate medical attention is required.

Eye Contact
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Seek immediate medical attention/advice.

Skin Contact
Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Wash contaminated clothing before reuse. Seek immediate medical attention/advice.

Inhalation
Move to fresh air. If breathing is difficult, give oxygen. If symptoms persist, call a physician.

Ingestion
Do NOT induce vomiting. Drink plenty of water. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician.

Most important symptoms/effects, acute and delayed

No information available.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to Physician
Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media
Water. Carbon dioxide (CO₂). Dry chemical. Keep containers and surroundings cool with water spray.

Unsuitable Extinguishing Media
None

Specific Hazards Arising from the Chemical
Sealed containers may rupture when heated. Spills produce extremely slippery surfaces.

Hazardous Combustion Products
Chlorine gas.

Explosion Data
Sensitivity to Mechanical Impact None
Sensitivity to Static Discharge None

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

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions
If spilled, take caution, as material can cause surfaces to become very slippery. Avoid contact with skin, eyes and clothing. Do not breathe vapors or spray mist. Ensure adequate ventilation. Use personal protective equipment.

Environmental Precautions
Avoid release to the environment. Collect spillage. See Section 12 for additional Ecological Information Dispose of contents/container to an approved waste disposal plant. Prevent product from entering drains. Do not flush into surface water or sanitary sewer system.
Methods and materials for containment and cleaning up

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

Methods for Cleaning Up
Neutralize with soda ash or sodium bicarbonate over area of spill. Sweep up and shovel into suitable containers for disposal. After cleaning, flush away traces with water.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling
Handle in accordance with good industrial hygiene and safety practice. Ensure adequate ventilation. Avoid contact with skin, eyes and clothing. Do not breathe vapors or spray mist. Do not eat, drink or smoke when using this product.

Conditions for safe storage, including any incompatibilities

Storage
Keep container tightly closed. Keep container closed when not in use. Keep out of the reach of children.

Incompatible Products
Chlorine-based bleaching agents.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

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>Phosphoric acid</td>
<td>STEL: 3 mg/m³ TWA: 1 mg/m³</td>
<td>TWA: 1 mg/m³ (vacated) TWA: 1 mg/m³ (vacated) STEL: 3 mg/m³</td>
<td>IDLH: 1000 mg/m³ TWA: 1 mg/m³ STEL: 3 mg/m³</td>
</tr>
<tr>
<td>Ammonium bifluoride</td>
<td>TWA: 2.5 mg/m³ °F</td>
<td>TWA: 2.5 mg/m³ dust TWA: 2.5 mg/m³ °F (vacated) TWA: 2.5 mg/m³</td>
<td></td>
</tr>
</tbody>
</table>

Appropriate engineering controls

Engineering Measures
Showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/Face Protection
Tightly fitting safety goggles.

Skin and Body Protection
Rubber gloves. Rubber apron.

Respiratory Protection
If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn.

Hygiene Measures
Wash thoroughly after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks / Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State</td>
<td>Liquid</td>
<td></td>
</tr>
<tr>
<td>Odor</td>
<td>Odorless</td>
<td></td>
</tr>
<tr>
<td>Appearance</td>
<td>Clear</td>
<td></td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>1</td>
<td>None known</td>
</tr>
<tr>
<td>Melting Point/Range</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Boiling Point/Boiling Range</td>
<td>100 °C / 212 °F</td>
<td>None known</td>
</tr>
<tr>
<td>Flash Point</td>
<td>None</td>
<td>None known</td>
</tr>
<tr>
<td>Property</td>
<td>Value</td>
<td>Remarks</td>
</tr>
<tr>
<td>-----------------------------------------</td>
<td>------------------------------</td>
<td>--------------------------</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Flammability Limits in Air</td>
<td></td>
<td></td>
</tr>
<tr>
<td>upper flammability limit</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>lower flammability limit</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Relative Density</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Water Solubility</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Solubility in other solvents</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Autoignition Temperature</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Viscosity</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Flammable Properties</td>
<td>Not flammable</td>
<td></td>
</tr>
<tr>
<td>Explosive Properties</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Oxidizing Properties</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Other information</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VOC Content (%)</td>
<td>No data available</td>
<td></td>
</tr>
</tbody>
</table>

### 10. STABILITY AND REACTIVITY

**Reactivity**

No data available.

**Chemical stability**

Stable under recommended storage conditions.

**Possibility of hazardous reactions**

None under normal processing.

**Conditions to avoid**

None known based on information supplied.

**Incompatible materials**

Chlorine-based bleaching agents.

**Hazardous decomposition products**

Chlorine gas.

### 11. TOXICOLOGICAL INFORMATION

**Information on likely routes of exposure**

**Product Information**

- **Inhalation**
  - May cause irritation of respiratory tract.
- **Eye Contact**
  - Eye contact with corrosive substances can cause eye burns.
- **Skin Contact**
  - Skin contact with corrosive substances can cause skin burns.
- **Ingestion**
  - Harmful if swallowed. Can burn mouth, throat, and stomach.
Symptoms related to the physical, chemical and toxicological characteristics

Symptoms

No information available.

Delayed and immediate effects and also chronic effects from short and long term exposure

Sensitization

No information available.

Mutagenic Effects

No information available.

Carcinogenicity

The table below indicates whether each agency has listed any ingredient as a carcinogen.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonium bifluoride</td>
<td></td>
<td>Group 3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

IARC: (International Agency for Research on Cancer)
Group 3: Not Classifiable as to its Carcinogenicity to Humans

Reproductive Toxicity
No information available.

STOT - single exposure
No information available.

STOT - repeated exposure
No information available.

Aspiration Hazard
No information available.

Numerical measures of toxicity - Product

The following values are calculated based on chapter 3.1 of the GHS document:

LD50 Oral 1246 mg/kg; Acute toxicity estimate

LD50 Dermal 7052 mg/kg; Acute toxicity estimate

12. ECOLOGICAL INFORMATION

Ecotoxicity
Toxic to aquatic life.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Toxicity to Algae</th>
<th>Toxicity to Fish</th>
<th>Toxicity to Microorganisms</th>
<th>Daphnia Magna (Water Flea)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phosphoric acid</td>
<td></td>
<td>LC50: 3 - 3.5 mg/L</td>
<td></td>
<td>EC50 12 h: = 4.6 mg/L</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Gambusia affinis 96 h</td>
<td></td>
<td>(Daphnia magna)</td>
</tr>
</tbody>
</table>

Persistence and Degradability
No information available.

Bioaccumulation
No information available.

Other Adverse Effects
No information available.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods
Dispose of in accordance with federal, state, and local regulations.

Contaminated Packaging
Dispose of in accordance with federal, state, and local regulations.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>California Hazardous Waste</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phosphoric acid</td>
<td>Corrosive</td>
</tr>
</tbody>
</table>

14. TRANSPORT INFORMATION

DOT

UN-Number  UN3264
Proper shipping name Corrosive liquid, acidic, inorganic, n.o.s.
Hazard Class 8
Packing Group II
Reportable Quantity (RQ) Ammonium bifluoride: RQ kg= 687.88, Phosphoric acid: RQ kg= 7088.21
Description UN3264, Corrosive liquid, acidic, inorganic, n.o.s. (Phosphoric acid, Ammonium bifluoride), 8, II, RQ
Emergency Response Guide Number 154
TDG

UN-Number: UN3264
Proper Shipping Name: Corrosive liquid, acidic, inorganic, n.o.s.
Hazard Class: 8
Packing Group: II
Description: UN3264, Corrosive liquid, acidic, inorganic, n.o.s. (Phosphoric acid, Ammonium bifluoride), 8, II

UN-Number: UN3264
Proper Shipping Name: Corrosive liquid, acidic, inorganic, n.o.s.
Hazard Class: 8
Packing Group: II
Description: UN3264, Corrosive liquid, acidic, inorganic, n.o.s. (Phosphoric acid, Ammonium bifluoride), 8, II

ICAO

UN-Number: UN3264
Proper shipping name: Corrosive liquid, acidic, inorganic, n.o.s.
Hazard Class: 8
Packing Group: II
Description: UN3264, Corrosive liquid, acidic, inorganic, n.o.s., 8, II

IATA

UN-Number: UN3264
Proper Shipping Name: Corrosive liquid, acidic, inorganic, n.o.s.
Hazard Class: 8
Packing Group: II
ERG Code: 8L
Description: UN3264, Corrosive liquid, acidic, inorganic, n.o.s. (Phosphoric acid, Ammonium bifluoride), 8, II

IMDG/IMO

UN-Number: UN3264
Proper Shipping Name: Corrosive liquid, acidic, inorganic, n.o.s.
Hazard Class: 8
Packing Group: II
EmS No.: F-A, S-B
Description: UN3264, Corrosive liquid, acidic, inorganic, n.o.s. (Phosphoric acid, Ammonium bifluoride), 8, II

UN-Number: UN3264
Proper Shipping Name: Corrosive liquid, acidic, inorganic, n.o.s.
Hazard Class: 8
Packing Group: II
Classification Code: C1
Description: UN3264, Corrosive liquid, acidic, inorganic, n.o.s. (Phosphoric acid, Ammonium bifluoride), 8, II

ADR

UN-Number: UN3264
Proper Shipping Name: Corrosive liquid, acidic, inorganic, n.o.s.
Hazard Class: 8
Packing Group: II
Classification Code: C1
Tunnel Restriction Code: (E)
Description: UN3264, Corrosive liquid, acidic, inorganic, n.o.s. (Phosphoric acid, Ammonium bifluoride), 8, II, (E)
ADR/RID-Labels: 8
Proper Shipping Name: Corrosive liquid, acidic, inorganic, n.o.s.
Hazard Class 8
Packing Group II
Classification Code C1
Special Provisions 274
Description UN3264, Corrosive liquid, acidic, inorganic, n.o.s. (Phosphoric acid, Ammonium bifluoride), 8, II
Limited Quantity 1 L

15. REGULATORY INFORMATION

International Inventories
TSCA Complies
DSL Complies
EINECS Complies
IECSC Complies
KECL Complies
PICCS Complies
AICS Complies

Legend
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

U.S. Federal Regulations

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No</th>
<th>Weight %</th>
<th>SARA 313 - Threshold Values %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonium bifluoride</td>
<td>1341-49-7</td>
<td>6.6</td>
<td>1.0</td>
</tr>
</tbody>
</table>

SARA 311/312 Hazard Categories

<table>
<thead>
<tr>
<th>Health Hazard</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Health Hazard</td>
<td>Yes</td>
</tr>
<tr>
<td>Chronic Health Hazard</td>
<td>No</td>
</tr>
<tr>
<td>Fire Hazard</td>
<td>No</td>
</tr>
<tr>
<td>Sudden Release of Pressure Hazard</td>
<td>No</td>
</tr>
<tr>
<td>Reactive Hazard</td>
<td>No</td>
</tr>
</tbody>
</table>

Clean Water Act
This product contains the following substances which are regulated 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>Phosphoric acid</td>
<td>5000 lb</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Ammonium bifluoride</td>
<td>100 lb</td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

CERCLA
This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302):

<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>Phosphoric acid</td>
<td>5000 lb</td>
<td></td>
<td>RQ 5000 lb final RQ</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>RQ 2270 kg final RQ</td>
</tr>
<tr>
<td>Ammonium bifluoride</td>
<td>100 lb</td>
<td></td>
<td>RQ 100 lb final RQ</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>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

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>New Jersey</th>
<th>Massachusetts</th>
<th>Pennsylvania</th>
<th>Illinois</th>
<th>Rhode Island</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phosphoric acid</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Ammonium bifluoride</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

U.S. EPA Label Information
EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION

NFPA
- Health Hazard: 3
- Flammability: 0
- Instability: 1

HMIS
- Health Hazard: 3
- Flammability: 0
- Physical Hazard: 1
- Personal Protection: D

Prepared By
Sunburst Chemicals
220 West 86th Street
Bloomington, MN 55420
952-884-3144

Issuing Date
03-Feb-2014

Revision Date
03-Feb-2014

Revision Note
New Issue

General 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 Safety Data Sheet