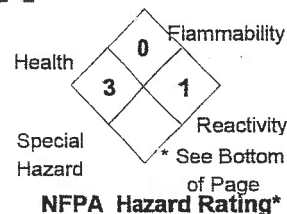


# MATERIAL SAFETY DATA SHEET

Manufactured by:

**SURFLEX<sup>®</sup>**  
SERIES
**Anderson  
Chemical Company**

 325 SOUTH DAVIS AVENUE  
 LITCHFIELD, MINNESOTA 55355  
 (320) 693-2477

**Product Name: Sour Plus**
**24-HOUR EMERGENCY PHONE #: 1-800-424-9300 (CHEMTREC)**

 Revised: 8/1/2011  
 Supersedes: 7/31/2006

Int

## I. IDENTIFICATION

**Chemical Name And Synonyms:**

Hydrofluorosilicic Acid, Fluosilicic Acid, Hexafluorosilicic Acid

**DOT Shipping Name**

Fluorosilicic Acid, Solution

**Chemical Family:**

Inorganic acid

**DOT Hazard Class & I.D. Number**

Corrosive Material UN1778

#	PG
8	II

## II. HAZARDOUS INGREDIENTS

Component	CAS NO.	%	TLV	PEL	Toxic	Hazard
Hydrofluorosilicic Acid	16961-83-4	18-21	2.5 MG/M3	2.5 MG/M3	NA	Corrosive

\*\*Toxic chemical subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40 CFR §372).

 NA: Not applicable  
 NE: Not established

## III. PHYSICAL DATA

**Boiling Point:** 222° F.

**Specific Gravity:** 1.166

**Appearance:** Clear, greenish liquid

**Form:** Liquid

**pH, 1% Soln.:** 1.9

**Solubility in Water:** Complete

**Odor:** Sharp, pungent odor

## IV. FIRE AND EXPLOSION HAZARD DATA

**Flashpoint:** Not applicable

**Extinguishing Media:** Small fires: Water spray, foam, dry chemical or CO2. Large fires: Water spray, fog or foam.

**Special Fire:** Although this product is not combustible, if a fire occurs in the near vicinity good fire fighting practice dictates the use of self-

**Fighting Procedures:** contained breathing apparatus and other protective, acid-proof gear.

**Unusual Fire And Explosion Hazards:** Reacts with many metals to produce flammable and explosive hydrogen gas. Keep container cool with water, using fog nozzles, as decomposition will occur above 222°F and produce toxic and corrosive fumes of fluoride.

## V. HEALTH HAZARD DATA

**Carcinogenic:** The raw materials used in this product are not considered to be a carcinogen by ACGIH and OSHA.

**Effects Of Over-exposure:** Corrosive. Contact may cause severe eye irritation, eye burns, and permanent eye damage. Contact may cause severe skin irritation, skin burns, and permanent skin damage. Harmful if inhaled. May cause severe irritation and burns of the nose, throat, and respiratory tract. Harmful or fatal if swallowed. May cause severe irritation and burns of the mouth, throat and digestive tract. Symptoms of overexposure may include ulceration of the nose and throat, coughing, salivation, headache, fatigue, dizziness, nausea, shock, and pulmonary edema (accumulation of fluid around the lungs). May lead to coma or death. Onset of symptoms may be delayed. Prolonged or repeated overexposure to fluoride compounds may cause fluorosis. Fluorosis is characterized by skeletal changes, consisting of osteosclerosis (hardening or abnormal density of bone) and osteomalacia (softening of bones) and by mottled discoloration of the enamel of teeth (if exposure occurs during enamel formation). Symptoms may include bone and joint pain and limited range of motion. Conditions aggravated by exposure may include skin and respiratory (asthma-like) disorders.

**Emergency And First Aid Procedures:** EYES: Immediately flush with water for 15 minutes, lifting the upper and lower eyelids occasionally. Medical attention should be given as soon as possible. SKIN: Immediately flush with water for at least 15-20 minutes while removing contaminated clothing and shoes, paying particular attention to skin under the nails. Always get medical attention no matter how minor skin burns appear. Wash contaminated clothing before reuse, but destroy contaminated shoes. INGESTION: Do not induce vomiting. If conscious, give large quantities of water to dilute the acid. Get medical attention immediately. Do not give anything by mouth to an unconscious person. INHALATION: Remove exposed person to an uncontaminated area immediately. If breathing has stopped, start artificial respiration at once. Oxygen should be provided for an exposed person having difficulty breathing (but only by an authorized person) until exposed person is able to breathe easily by themselves. Exposed person should be examined by a physician.

**NOTES TO PHYSICIAN:** Beware of late onset of pulmonary edema for up to 48 hours. Treat severe burns similar to hydrofluoric acid exposure.

\* NFPA/HMIS Degree or Hazard: 4 = Extreme; 3 = High; 2 = Moderate; 1 = Slight; 0 = Insignificant.

*Continued On Back*

HMIS A. Safety Glasses B. Safety Glasses, Gloves C. Safety Glasses, Gloves, Apron D. Face Shield, Gloves, Apron E. Safety Glasses, Gloves, Dust Respirator F. Safety Glasses, Gloves, Apron, Dust Respirator G. Safety Glasses, Gloves, Vapor Respirator H. Splash Goggles, Gloves, Apron, Vapor Respirator I. Safety Glasses, Gloves, Vapor and Dust Respirator J. Splash Goggles, Gloves, Apron, Vapor and Dust Respirator K. Air Line, Hood or Mask, Gloves, Full Suit, Boots X. Ask your supervisor for guidance.

## VI. REACTIVITY DATA

**Stability - Unstable:** **Stable: x**

**Conditions To Avoid:** Heat, sparks and open flames.

**Incompatibility:** Avoid contact with metals, stoneware, strong acids and alkalis, explosives, toxicants, readily oxidizable materials, alkali (Materials to Avoid) metals, combustible solids, and organic peroxides.

**Hazardous Decomposition Products:** When heated to decomposition (222°F), it emits highly toxic and corrosive fumes of hydrofluoric acid, silicon tetrafluoride and hydrogen gas.

## VII. SPILL OR LEAK PROCEDURES

### Steps To Be Taken In Case Material Is Released Or Spilled:

Small Spills: Wear appropriate protective equipment. Contain material. Neutralize with water and lime (hydrated lime) and flush to drain.

Keep unnecessary people away. Stay upwind, keep out of low areas. Isolate hazard area and deny entry.

Large spills: Any personnel in area should wear a NIOSH approved air supplied acid suit. Dike area to contain material. Do not allow solution to enter sewers or surface water. Neutralize the spill with water and lime (hydrated lime). Take up with sand or noncombustible absorbent material and place in containers for later disposal. Provide ventilation and be wary of hydrogen generated upon contact with some metals.

**Waste Disposal Method:** Dispose according to federal, state and local regulations.

## VIII. SPECIAL PROTECTION INFORMATION

**Respiratory Protection:** If use conditions generate vapors or mists, wear a NIOSH approved respirator appropriate for those emission levels.

**Ventilation:** General or local exhaust to maintain vapor or mists below permissible exposure levels.

**Protective Gloves:** Acid-proof gloves

**Eye Protection:** Chemical goggles; full faceshield if use conditions warrant.

**Protective Clothing:** If contact is possible, wear acid-proof clothing and shoes

## IX. SPECIAL PRECAUTIONS

### Precautions To Be Taken In Handling And Storing:

Store in containers in cool, dry, well ventilated area away from sources of heat or ignition. Keep container tightly closed when not in use. Do NOT store in glass or stoneware. Use non-sparking tools. Keep separate from alkali metals, oxidizing agent, combustible solids and organic peroxides. Do not inhale fumes and prevent skin contact. If pungent, irritating odor can be detected, workers are being overexposed. Wash thoroughly after handling. Do not get in eyes, on skin, or on clothing. Wear all protective equipment and clothing when handling.

**Other Precautions** Eyewash and safety shower facilities should be available where product is stored or handled. Contact lenses should not be worn when handling chemical.

## X. REVISED INFORMATION

**MSDS Status:** Updated

The opinions expressed herein are those of qualified experts within ANDERSON Chemical Company. We believe that the information contained herein is current as of the date of this Material Safety Data Sheet. Since the use of this information and the conditions of use of the product are not within the control of ANDERSON Chemical Company, it is the user's obligation to determine the conditions of safe use of the product.