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## HIGH TECH ACID

HMIS: 4\*-0-1

NFPA: 4-0-1

Data Sheet: 166  
 Prepared: 12/28/05  
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This Material Safety Data Sheet complies with OSHA Hazard Communication Standard 29 CFR 1910.1200.

### SECTION 1: COMPOSITION / INFORMATION ON INGREDIENTS

If present, IARC, NTP, and OSHA Carcinogens, are identified with an asterisk (\*) in this section.

<u>Ingredient(s)</u>	<u>Exposure Limits</u>	<u>Percent</u>	<u>Note</u>
Hydrofluoric Acid CAS#: 7664-39-3	PEL-TWA 3 ppm ACGIH - ceiling 3 ppm	<15%	OSHA Short Term Exposure Limit (STEL) - 6ppm

### SECTION 2: HAZARDS IDENTIFICATION

**Permissible Exposure Limits:** Not established for this product. See Section 1 for Component PELs and TLVs.

**Effects of Acute Overexposure:**

**Eyes:** Exposure to liquid, vapor, or mist causes severe eye irritation. Symptoms may include stinging, tearing, redness, swelling and eye damage. Burning may not be immediately painful or visible. Prolonged or repeated exposure may cause irreversible eye damage including corneal damage and blindness.

**Skin:** Exposure to liquid, vapor, or mist causes severe skin irritation. Symptoms may include redness, burning and severe skin damage. Prolonged or repeated exposure may cause irreversible skin damage including burns. HF will penetrate skin and attack underlying tissue and bone. Large burns have resulted in the removal of calcium from the bone.

**Breathing:** Prolonged or repeated exposure especially when sprayed may cause irreversible respiratory tract damage.

**Swallowing:** Exposure may be harmful or fatal. Symptoms may include: severe gastrointestinal irritation (diarrhea, nausea, vomiting) and burns to the mouth, throat and digestive tract. Symptoms may include burning and severe gastrointestinal irritation. The body will be depleted of calcium if not properly treated.

**Primary Route(s) of Entry:** Skin contact, skin absorption, eye contact, and inhalation.

**Effects of Chronic Overexposure:** This product does not contain components in excess of 0.1% which are listed as carcinogens by IARC, NTP, OSHA, or ACGIH.

**Medical Conditions Aggravated by Exposure:** Skin contact may aggravate existing dermatitis or other significant skin conditions. Inhalation may adversely affect existing respiratory conditions.

### SECTION 3: FIRST AID MEASURES

**Eyes:** Immediately remove individual from exposure area and into fresh air. Flush eyes with water for at least 30 minutes while holding eyelids apart. Seek immediate medical attention.

**Skin:** Remove contaminated clothing immediately. Discard contaminated shoes. Wash exposed area with large amounts of soap and water. Immediately apply calcium gluconate gel to all aggravated skin areas. The gel should be massaged into affected skin by personnel wearing protective gloves to prevent skin contamination during first aid. Alternatively, the affected areas may be soaked in either iced 0.2% water solution of hyamine 1622 or iced 0.13% water solution of zephiran chloride. If hyamine 1622 or zephiran chloride solutions are not available, use an iced saturated water solution of magnesium sulfate (Epsom salts), or if that is not available -- iced 70% alcohol or ice water. Get medical attention as soon as possible. Calcium gluconate gel can be prepared by mixing a 10 milliliter ampule of calcium gluconate with a 2 ounce tube K-Y jelly. After a jar of this mixture has been opened and used, the unused portion should be discarded. Hyamine or zephiran solutions should be prepared in advance and kept in the refrigerator.

**Breathing:** If affected, remove individual to fresh air. If breathing is difficult, administer oxygen (if you have been trained in its use). If breathing has stopped, give artificial respiration. Keep person warm, quiet and get immediate medical attention.

**Swallowing:** Do not induce vomiting. Vomiting will cause further damage to the throat. Get medical attention immediately. If individual is conscious and alert, immediately rinse mouth with water and dilute the swallowed material with milk or water. Seek immediate medical attention.

**SECTION 4: FIRE FIGHTING MEASURES**

**Flash Point:** >200 °F TCC

**Explosive Limit:** Not applicable

**Extinguishing Media:** Foam, CO<sub>2</sub>, Dry Chemical, and Water.

**Hazardous Decomposition Products:** May form toxic materials including, but not limited to the following: acid vapors, carbon monoxide, carbon dioxide, and sulfur compounds, etc. May react with metal to release highly flammable hydrogen gas.

**Fire Fighting Procedures:** Wear Self Contained Breathing Apparatus with a full face piece operated in a positive pressure demand mode with full body protective clothing when fire fighting.

**Special Fire and Explosion Hazards:** This product contains a large amount of water and will not burn under normal fire conditions.

**SECTION 5: ACCIDENTAL RELEASE MEASURES**

**Small Spill:** Absorb liquid with vermiculite, floor absorbent, or other absorbent material. Ventilate area well before re-entry. Appropriate personal protective equipment should be worn.

**Large Spill:** Only personnel trained in spill clean-up under 29 CFR 1910.120 should be involved with spill clean-up procedures. Prevent material from entering drains, sewers, streams, or other bodies of water. Prevent from spreading. If run-off occurs notify appropriate authorities as required. Pump or vacuum transfer spilled product to clean containers for recovery. Absorb unrecoverable product on absorbent materials. Transfer contaminated absorbent and other materials to container for neutralization. Neutralize spilled material. Follow Local, State, and Federal regulations for proper disposal.

**SECTION 6: HANDLING AND STORAGE**

Minimize temperature extremes. Keep containers closed when not in use.

Keep away from direct sunlight. Do not transfer to unmarked containers. Loosen closure carefully. Section 7: Exposure Controls / Personal Protection

**Respiratory Protection:** Not required under normal conditions of use; however, if product is sprayed or used in a confined area a NIOSH / MSHA approved respirator may be advised in absence of proper environmental control. OSHA regulations also permit other NIOSH / MSHA respirators under specified conditions -- see 29 CFR 1910.134 or your safety equipment supplier. Engineering and/or administrative controls should be implemented to reduce exposure.

**Ventilation:** Provide sufficient mechanical ventilation (general and/or local exhaust) to maintain exposure below the recommended exposure limits.

**Protective Gloves:** Wear chemical resistant gloves such as neoprene or PVC. Contact your safety equipment supplier.

**Eye Protection:** Chemical splash goggles and a face shield to prevent splash on to the face, in compliance with OSHA regulations, are advised.

**Other Protective Equipment:** To prevent repeated or prolonged skin contact, wear impervious clothing and boots.

**SECTION 7: EXPOSURE CONTROLS/PERSONAL PROTECTION**

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**SECTION 8: PHYSICAL AND CHEMICAL PROPERTIES**

<u>Property</u>	<u>Measurement</u>	<u>Property</u>	<u>Measurement</u>
Boiling Point	212 °F @ 760 mmHg (component)	Specific Gravity	1.03 @ 75°F
Vapor Pressure	17.5 mm/Hg @ 68 °F (component)	Percent Volatiles	>60 %
Vapor Density	Lighter than Air	Evaporation Rate	Slower than Ether
Solubility In Water	Soluble	Appearance	Clear pink liquid
pH	Acidic		

**SECTION 9: STABILITY AND REACTIVITY**

**Hazardous Polymerization:** Can not occur.

**Stability:** Stable.

**Incompatibility:** Avoid contact with contact with strong oxidizing agents, caustic materials, and metal Do not mix with any products.

**SECTION 10: TOXICOLOGICAL INFORMATION**

No data available at this time.

**SECTION 11: ECOLOGICAL INFORMATION**

No data available at this time.

**SECTION 12: DISPOSAL CONSIDERATIONS**

Dispose of in accordance with all Local, State, and Federal Regulations.

This product may be classified as an RCRA Hazardous Waste D002 due to the pH of the solution and the corrosive characteristics.

**SECTION 13: TRANSPORTATION INFORMATION**

**DOT Hazard Classification:** Corrosive liquid N.O.S. (contains hydrofluoric acid), 8 (corrosive material), UN 1760, II

Section 14: Regulatory Information

SARA Title III, Section 313 chemicals: Hydrofluoric acid is subject to the reporting requirements. Hydrofluoric acid can be found in this mixture at 8.1%.

SARA 312 -- Health: Acute (Yes) Chronic (Yes) Fire (No) Reactivity (Yes)

Proposition 65: No

**SECTION 14: OTHER INFORMATION**

Containers used to transport and store this material may be hazardous when emptied. Residue (Vapor, Liquid, and/or Solid) may be present in the emptied container. All hazard precautionary measures should be followed.

The information accumulated and reflected in this Material Safety Data Sheet is believed to be accurate but is not warranted to be, whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.