

MULTI-ETCH™
MATERIAL SAFETY DATA SHEET

24hr Emergency Assistance 800/451-8346

This MSDS is being provided to your company for the purpose of providing current health and safety information to your management and for your employees who work with this material. Please read the information before attempting to use the material. You must also provide this information to those people at your company whose responsibility it is to comply with Federal and State "Right to Know" regulations. Also make sure this information is made available and is disseminated to your employees before use of product. This information should be kept on file and made available to any employee who requests it. It is your obligation to comply with the NFP Act.

NFPA hazard rating-

Health2 Fire0 Reactivity3
0=Insignificant, 1=Slight, 2=Moderate, 3=HIGH, 4=Extreme

SECTION I

Identity (as used on label and list): MULTI-ETCH™

Manufactured for: EXOTICA, P.O. Box 9, Clarkdale, AZ 86324

Telephone number for non-medical contact during regular business hours: (928) 634-5307

Date prepared: November 18, 1993

SECTION II Hazardous ingredients/Identity information

Hazardous -	OSHA PEL	ACGIH TLV	Other Limit	CAS Number Recommended
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Ammonium persulfate - 5mg/m		(proposed)		7727-54-0
Sodium Fluoride- 2.5mg/m		2.5mg/m (as F)	2.5mg/m (as F)	7681-49-4 (as F)

Sodium fluoride human LDLO: 75 mg/kg

Sodium fluoride requires reporting under the Massachusetts and Pennsylvania "Right to Know" laws for Hazardous Substances. This product does not contain substance(s) subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR 372.

SECTION III - Physical/Chemical Characteristics

Boiling Point -----N.A.

Vapor Pressure (mm HG)----- N.A.

Vapor Density (AIR=1)----- N.A.

Specific Gravity (H 0=1)----- >2

Melting Point----- N.A.

Evaporation Rate (Butyl Acetate = 1) ---N.A.

Solubility in Water: Soluble

Appearance and Odor: White, granular solid, no odor

SECTION IV -- Fire and Explosion Hazard Data

Flash Point (Method Used)	Flammable Limits
Not flammable	LEL--N.A. UEL --N.A.

Extinguishing Media -- Not applicable. Use extinguishing media applicable to the surrounding fire.

Special Fire Fighting Procedures -- None.

Unusual Fire and Explosion Hazards -- None. Cool containers exposed to the fire with a large volume of water spray.

SECTION V -- Reactivity Data

Stability -- Conditions to Avoid: Excessively high temperatures, moisture

Incompatibility (Materials to Avoid) -- Alkalis, strong acids, moisture, reducing agents, most halides, heavy metals, oxidizers.

Hazardous Decomposition or Byproducts -- Toxic fumes of hydrogen fluoride gas and Na2O. Fumes of sulfuric acid mist, oxygen and oxides of sulfur and nitrogen.

Hazardous Polymerization -- will not occur.

SECTION VI -- Health Hazard Data

Routes of Entry -- inhalation, skin, ingestion, eyes.

Health Hazards(Acute and Chronic) -- Dusts are corrosive to the eyes and skin. Swallowing or inhalation of high concentrations of dust may lead to fluoride poisoning. Symptoms include nausea, vomiting, abdominal pain, diarrhea, stupor and weakness. More severe exposures result in muscular weakness, tremors, convulsions, collapse, dyspnea, respiratory and cardiac failure and death.

Carcinogenicity: NTP? No IARC Monographs? No OSHA Regulated? No

Sodium fluoride is currently being tested for carcinogenicity by NTP.

Signs and Symptoms of Exposure: Sodium fluoride, on prolonged exposures, can lead to mottling of teeth enamel, osteosclerosis. Doses of 25-50 mg. can cause severe vomiting, diarrhea and central nervous disturbances. It is also very phytotoxic.

Medical Conditions Generally Aggravated by Exposure: None known.

Emergency and First Aid Procedures:

In case of eye contact, immediately flush eyes with lots of running water for 15 minutes, lifting the upper and lower eyelids occasionally. Get immediate medical aid.

In case of skin contact, remove contaminated clothing and shoes and wash later before reuse. Immediately wash affected area with soap or mild detergent and lots of running water until no evidence of chemical remains (approximately 15-60 minutes). Get immediate medical aid.

In case of ingestion: if conscious, immediately induce vomiting by giving 2 glasses of water and sticking a finger down the throat. Get immediate medical aid. Do not give anything by mouth to an unconscious or convulsing person.

In case of inhalation, remove to fresh air. Give artificial respiration if not breathing. Get immediate medical aid.

SECTION VII -- Precautions for Safe Handling and Use

Spill Procedures -- Do not touch spilled material. Wear rubber gloves, rubber boots, rubber apron, chemical goggles and respiratory protection. Stop leak if you can do it without risk. Neutralize with agricultural lime, slaked lime, crushed limestone, or sodium bicarbonate. For small spills, take up with sand or other absorbent material and place into DOT-approved containers. For large spills, neutralize and shovel into DOT waste containers. Comply with all governmental regulations on spill reporting.

Waste Disposal Method -- Dispose of in a manner approved for this material. Consult appropriate Federal, State, and local regulatory agencies to ascertain proper disposal procedures.

Precautions to Be Taken in Handling and Storing -- Store in a cool, dry, well-ventilated place away from incompatible materials. Protect eyes, skin and clothing. Wash thoroughly after handling. Keep out of reach of children.

Other Precautions -- Contact lenses may contribute to the severity of an eye injury. Empty containers may still contain residues and are subject to proper waste disposal.

SECTION VIII -- Control Measures

Respiratory Protection -- If use conditions generate dust, wear NIOSH approved respirator.

Ventilation -- A fume hood is recommended.

Protective Gloves -- Rubber or neoprene.

Eye Protection -- Chemical goggles

Other protective clothing or equipment -- long sleeved shirt, rubber apron. Eye wash and safety shower nearby.

Work Hygienic Practices -- Use extreme caution when using the product.

We believe that the information contained herein is current as of the date of the Material Safety Data Sheet. Although it is probable that this mixture itself has not been tested as to what hazards may be present, OSHA Section 1910.1200 has been applied. This states that if one or more hazardous components are present at a level of 1.0% (or greater), then the mixture is presumed to have all the health hazards of the components. Since the use of the product is not within our control, it is the user's obligation to determine the conditions of safe use of the product. All the above information was provided by the manufacturer.

End

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Reactive Metals Studio, Inc.

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