



ARCAL CHEMICALS, INC.

SAFETY DATA SHEET **Stainless Steel Etch #12**

Revised: August 26, 2015

1. IDENTIFICATION OF THE PRODUCT AND MANUFACTURER

Stainless Steel Etch #12

Arcal Chemicals, Inc.
223 Westhampton Avenue
Capitol Heights, MD 20743

Tele: 301-336-9300
Fax: 301-336-6597
Emergency: Chemtrec 800-424-9300

2. HAZARDS IDENTIFICATION



Emergency Overview:

Exposure routes: Skin contact, eye contact and inhalation are possible; ingestion is unlikely because of its appearance and odor.

Eye contact: If splashed into the eyes, serious burns will occur.

Skin contact: Contact with skin will cause staining and irritation. Continued contact, as from contaminated clothing, may result in capillary blockage and gangrene.

Ingestion: Ingestion will damage oral and gastric membranes.

Inhalation: Inhalation of mist will cause nasal irritation; deeper penetration will harm the respiratory system.

Carcinogenicity: No component of Stainless Steel Etch 12M2 is known to be carcinogenic.

3. COMPOSITION AND INFORMATION ON INGREDIENTS

<u>Hazardous Component</u>	<u>CAS #</u>	<u>Conc.</u>	<u>OSHA PEL</u>	<u>ACGIH TWA</u>
Ferric chloride	7705-08-0	20-30%	1 mg/m ³	1 mg/m ³
Ammonium bifluoride	1341-49-7	5 - 10%	2.5 mg/m ³	2.5 mg/m ³

4. FIRST AID MEASURES

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Remove contact lenses, if present. Continue rinsing. Get medical attention immediately.

Skin: As quickly as possible, remove contaminated clothing, shoes and leather goods (e.g. watchbands, belts).

Immediately flush with lukewarm, gently flowing water for 15-20 minutes. Immediately obtain medical

attention. Completely decontaminate clothing, shoes and leather goods before re-use.

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Ingestion: Do not give anything by mouth if victim is unconscious or convulsing. Have victim rinse mouth thoroughly with water. Do not induce vomiting. If vomiting occurs naturally, have victim rinse mouth with water again. Quickly transport victim to an emergency care facility.

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician immediately.

Notes to physician: Treat symptomatically. HF Antidote Gel from IPS Healthcare is recommended as treatment for injuries from hydrofluoric acid. Immediately apply calcium gluconate gel 2.5% and massage into the affected area using rubber gloves; continue to massage while repeatedly applying gel until 15 minutes after pain is relieved.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media: Stainless Steel Etch 12M2 is about 2/3 water and will not burn.

Hazardous combustion products: Heating could produce fumes of hydrofluoric acid and hydrochloric acid gas.

Precautions for fire-fighting: Use full personal protective equipment. Remove containers to cooler areas if possible. Avoid dispersing this concentrated solution with a heavy water stream while extinguishing other burning material, in order to minimize necessary clean-up.

NFPA Flammable Liquids Classification:

Health
3

Flammability
0

Reactivity
0

6. ACCIDENTAL RELEASE MEASURES

Environmental precautions: Do not let product enter drains.

Methods for cleaning up: Wear appropriate personal protective equipment as specified in Section 8. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Contain and recover liquid when possible. Collect liquid in an appropriate container or absorb with an inert material (e. g., vermiculite, dry sand, earth,) and place in a chemical waste container.

7. HANDLING AND STORAGE

Handling: Keep in a tightly closed container. Use goggles and chemical resistant gloves.

Storage: Store in a cool, dry, ventilated area. Protect against physical damage. Separate from acids.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

General advice:

Exposure controls: Provide sufficient mechanical ventilation to maintain exposure below guidelines.

Eye protection: Wear splash-proof safety goggles if material could be misted or splashed into eyes.

Skin protection: Wear chemically resistant gloves without tears, pinholes, or signs of wear.

Respiratory protection: A NIOSH-approved respirator may be needed where airborne concentrations exceed exposure limits.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state Liquid
Form NA
Color Yellow
Odor Acidic - caution!
Boiling point/boiling range >212 F
Melting point/range NA
pH <2
Flash point None
Evaporation rate NA
Vapor pressure NA
Relative vapor density Similar to air
Density 1.22
Bulk density 10.2 lb/gal
Water solubility Complete
Viscosity 100 cps
Solids in Solution 30 - 40 %

10. STABILITY AND REACTIVITY

Conditions to avoid: Keep containers tightly closed and avoid splashes or spills.
Incompatible products: Metals, aluminum, tin, zinc
Hazardous decomposition products: Hydrogen chloride, hydrogen fluoride, nitrogen oxides, iron oxides.

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity : Acute oral/rat: LD50 60-130 mg/kg
Acute inhalation toxicity : Respiratory tract irritant; severe injury is usually avoided by the self-limiting coughing and sneezing symptoms.
Acute dermal toxicity : Irritant, corrosive if contact is prolonged.

12. ECOLOGICAL INFORMATION

Ecotoxicity: For fluorides: LC50 - 96 hr: 51 mg/L (fishes, salmo gairdneri)
EC50 - 96 hr: 10.5 mg/L (crustaceans, mysidopsis)

13. DISPOSAL CONSIDERATIONS

Waste disposal methods; Dispose of in accordance with all applicable local, state and federal regulations.

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14. TRANSPORT INFORMATION

ID No.	Proper Shipping Name	Hazard Class	Packing Group
UN 2817	Ammonium Hydrogendifluoride Solution	8 (6.1)	II

15. REGULATORY INFORMATION

TSCA: All ingredients are listed

16: OTHER INFORMATION

The information accumulated herein 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.