



## MULTI-ETCH FACT SHEET

**Multi-Etch**—the SAFER solution for preparing titanium and other metals  
Formulated as a **substitute for hydrofluoric** and nitric acids, Multi-Etch safely optimizes titanium for Cleaner Welding and Brilliant Anodizing and works on multiple metals.

### APPLICATIONS

#### TITANIUM

##### Anodizing

Preparing titanium with Multi-Etch is a critical first step for achieving deep saturated color. Expect excellent results by etching for 7-10 seconds in Multi-Etch heated to 150-160°F or 2-4 minutes at room temperature (70°F) in double strength solution.

##### Welding

Multi-Etch effectively strips oxides from titanium, safely preparing surfaces for strong welds, that has found favor in aerospace applications.

##### Erasing Anodizing

Multi-Etch is also used to erase anodizing.

#### NIOBIUM

##### Welding

Multi-Etch effectively prepares niobium for electron beam welding.

##### Erasing Anodizing

Multi-Etch is also used to erase anodizing.

#### OTHER METALS

##### Silver

Multi-Etch removes light fire scale on silver.

##### Platinum

Multi-Etch removes all steel ions in preparation for welding or soldering platinum.

##### All Precious Metals

Multi-Etch removes taps and broken drill bits from gold, platinum, silver, palladium, and tantalum.

##### Copper

Multi-Etch quickly cleans copper pipes and tubing for soldering.

##### Meteorites

Multi-Etch brings out the crystal structures in meteorites.



**Multi-Etch, LLC**

[www.multietch.com](http://www.multietch.com)

(800) 297-6707



## INSTRUCTIONS FOR USE

See [www.multietch.com](http://www.multietch.com) for the most recent instructions under the “How to Use” tab.

## PHYSICAL PROPERTIES

- Multi-Etch comes as dry, white, granular crystals to be mixed with distilled or DI water.
- Multi-Etch solution is clear and odorless with pH 6.8 when first mixed.

## STORAGE

- Store and handle in accordance with all current regulations and standards.
- Store in a well-ventilated, cool, dry area in properly labeled plastic containers, not above 120°F.
- Do not store in areas exposed to flames, sparks, and other sources of ignition.

## SHELF LIFE

Multi-Etch has a shelf life of at least 11 years unmixed, two years once mixed in solution.

## SAFETY PRECAUTIONS

- Always use a fume hood indoors or etch outdoors.
- Avoid contact with skin, eyes or clothing. Use NIOSH approved safety goggles, rubber gloves, and protective clothing.
- Refer to SDS at [www.multietch.com/safety](http://www.multietch.com/safety) for complete safety information.

## DISPOSAL

- Dispose of spent solution in accordance with local and Federal environmental guidelines and regulations.
- In many areas, spent Multi-Etch solution can be neutralized and safely discharged to the local sewer system with prior approval.

### LIABILITY DISCLAIMER

Multi-Etch is intended for use only by persons having appropriate technical skills and experience working safely with potentially dangerous chemical compounds. Each user of Multi-Etch assumes responsibility for inspecting, testing and otherwise determining whether Multi-Etch use is safe and appropriate for the customer's project. Multi-Etch, LLC disclaims all liability for any costs or damages, including personal injury or death, proximately caused by any person's failure to handle, mix, store, use, or dispose of Multi-Etch in accordance with all local and Federal laws and regulation and all safety instructions at [www.multietch.com/safety](http://www.multietch.com/safety).

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