



# Product Bulletin

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## MI-TIQUE® PATINA

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ROOM TEMPERATURE ANTIQUING SOLUTION USED TO PRODUCE  
ANTIQUED GREEN "PATINA" FINISH ON COPPER, BRASS AND BRONZE SURFACES

### SOLUTION MAKEUP

**MI-TIQUE® PATINA** liquid concentrate is used full strength to produce a natural verdi or patina green color on copper alloys.

Prior to charging a production tank, some experimentation should be done with properly prepared sample parts, using various immersion times and drying temperatures to determine the conditions required to produce the desired color.

Antique finishes may be protected with a light lacquer top coat. The ultimate color will be influenced and enhanced by the top coat and it must be applied before judging the depth of color or before comparing with other antique finishes. The natural color of the alloy and the mechanical finish on the surface will also affect the final color.

### **FINISHING PROCEDURE**

1. Thoroughly clean and degrease pieces with Hubbard-Hall's Mi-Clean 100, heavy-duty low temperature (65-140 F.) alkaline soak cleaner. A typical cleaning time is 5 to 10 minutes. Mi-Clean 24, an acidic cleaner used at 10% by volume in water, may also be used to clean and deoxidize in one step.  
  
Large architectural panels and objects should be cleaned by belt sanding, glass bead or sand blasting or with other abrasive media.
2. Rinse small objects in a bottom-fed, overflowing cold water rinse. Large objects with water spray.
3. Immerse pieces in the **MI-TIQUE® PATINA** solution for one (1) to three (3) minutes. If dip baskets are used, the parts should be agitated when first introduced into the solution to break air bubbles and to assure solution contact with all surfaces.
4. Remove pieces from the Mi-Tique® solution and allow them to air dry without rinsing. Forced warm air drying will affect the color development.
5. Immerse part in boiling water for 1-2 seconds. Allow the part to air dry. The color is greatly enhanced by this quick dip.
6. Brush surfaces lightly to "highlight" or produce an antiqued finish.
7. Seal the finish with a light acrylic lacquer.

Note: Parts may be given an antique finish prior to the green patina using Hubbard-Hall's Mi-Tique® 1791 or Mi-Tique® 1792.

# MI-TIQUE® PATINA

## **EQUIPMENT**

The Mi-Tique® tank should be constructed of stainless steel or rigid polypropylene. Cleaning and rinse tanks may be constructed of mild steel. Racks, hooks and baskets should also be constructed of stainless steel or polypropylene. Non-ferrous metals such as galvanized iron, bronze, copper, tin or aluminum should not be used as these materials will contaminate or deplete the Mi-Tique® solution.

Hot alkaline cleaning and the Mi-Tique® solutions must be exhausted. The duct work may be of stainless steel, polypropylene or PVC. Galvanized steel should not be used.

## **CAUTION**

The **MI-TIQUE® PATINA** solution is acidic. It may cause skin burns. Do not get in eyes, on skin or clothing. Do not take internally. Wear eye protection, (glasses, goggles, or face shield), protective gloves and rubber apron when mixing solution and while working with the solution. Gas proof goggles are the preferred eye protection.

In case of contact, immediately flush skin or eyes with plenty of water for at least 15 minutes. For eyes, call a physician.

When withdrawing **MI-TIQUE® PATINA** concentrate from shipping container, be sure to work in a ventilated area.

## **TREATMENT PROCEDURE FOR DISPOSAL OF MI-TIQUE® SOLUTIONS**

For disposal purposes, the following method may be used to precipitate the metals leaving a solution with 0 to 1 parts per million total metal concentration.

Neutralize with magnesium hydroxide to a pH specified by Local, State, or Federal Environmental Regulatory Authorities. Neutralized material should be filtered prior to discharge.

## **CAUTION**

The Mi-Tique® solution is mildly acidic. Avoid contact with eyes, skin and clothing. Wear eye shields, protective gloves and aprons. The solution is toxic if taken internally. Read and understand OSHA safety data sheet and drum warning labels prior to working with or handling this product.

## **WARRANTY**

THE QUALITY OF THIS PRODUCT IS GUARANTEED ON SHIPMENT FROM OUR PLANT. IF THE USE RECOMMENDATIONS ARE FOLLOWED, DESIRED RESULTS WILL BE OBTAINED. SINCE THE USE OF OUR PRODUCTS IS BEYOND OUR CONTROL, NO GUARANTEE EXPRESSED OR IMPLIED IS MADE AS TO THE EFFECTS OF SUCH USE, OR THE RESULTS TO BE OBTAINED.