DATE: NOVEMBER 1, 2011

EMERGENCY - MARTRON 704-289-1934 CHEMTREC 800-424-9300

**REF. # MFC-005003** 

# MARTRON GOLD S DYE

#### 1. Description

Martron Gold S Dye is a single component, water soluble dye, used to color anodized aluminum gold, similar to 14 karat gold.

RoHS compliant

## 2. Application Instructions

Concentration: 1-2 g/l

pH: 6.0 ±0.5

Buffering: Not required

Temperature:  $140^{\circ}F \pm 5^{\circ}F/60^{\circ}C$ 

Oxide film thickness: 0.20-0.40 mils.

Dye time: Depending on the shade desired, dye times could range from 2-5 minutes,

but can only be determined by sampling in plant production.

Preferred sealing: Specialty Sealant MTL

Specialty Sealant

# 3. Conditions for Using Martron Gold S Dye

Tank: Stainless steel or other acid resistant materials such as neoprene,

polyethylene and polypropylene that can withstand a constant operating

temperature of 140°F.

Water quality: Deionized

pH adjustments: Raise with sodium hydroxide.

Lower with acetic acid.

The pH should be checked once per shift with a calibrated meter and

maintained within recommended range.

Bath agitation: Moderate agitation must be used for high uniformity of color.

Rinsing: It is important to remove all acid residues clinging to the work and acid

retention in the oxide pore itself. Rinse work load thoroughly after anodizing.

A minimum of two rinses is recommended, with the second rinse at over-flow.

To increase rinsing effectiveness, add vigorous air agitation in all rinse tanks. This also improves your rinsing of surfaces on complicated shaped parts.

### 4. Light Fastness

Rating: 5 (1=poor, 8=excellent)

This color is not recommended for outdoor applications or other situations where it is subjected to intense UV radiation.

### 5. Storage

Shelf life is virtually unlimited.

Store in original container in a cool dry location.

Close package tightly after removal of dye.

In humid environments, dye powder may clump-up.

#### 6. Preparation of A New Dye Bath

- 1. A cleaned tank is filled with deionized water to about 75% of final volume and raised to dyeing temperature.
- 2. The required amount of dye is weighed out and dissolved in hot deionized water (160°-180°F) in a separate container until a slurry is formed. This is your stock solution.
- 3. With agitation turned on in tank, pour stock solution into tank.
- 4. Top off the tank to final working solution volume with hotter deionized water and agitate for 15 minutes.
- 5. Using a calibrated pH meter, check the pH and adjust if necessary.
- 6. The dye bath is brought to dyeing temperature, 140°F ±5°F.

#### 7. Conversion Factor

Converting grams per liter (g/l) to ounces per gallon (oz/gal)

 $g/I \times 0.134 = oz/gaI$ 

#### 8. Product Safety

We recommend that the company/operator read and review the Safety Data Sheet (SDS) for the appropriate health and safety warnings before use.

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