

# Accu-LABS INC.

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**A2LA Accredited ISO/IEC 17025:2005 Certificate # 2558.01**

## **524 IRIDESCENT CHROMATE**

Accu-Labs 524 Iridescent Chromate is an economical, dry free flowing powder which is added to water (without any other acid additions) to produce iridescent to bronze films on zinc and cadmium plate, zinc base die-castings, hot-dipped galvanizing, copper brass and silver.

Accu-Labs 524 meets the requirement of Government Specification ASTM B 633(QQ-Z-325) for zinc and QQP-416A Type II for cadmium plate.

### **Advantages**

1. Free-flowing, single component powder
2. Versatile operating parameters
3. Produces most adherent chromate film on chloride zinc deposits
4. Produces an exceptional hard wet film
5. Excellent corrosion resistant film
6. Excellent base for organic coatings

### **Equipment**

Tank                      Stoneware crocks, polyethylene, polypropylene, or fiberglass tanks.  
Heating Coils        If heating is desired, use quartz or Teflon coils.

### **Make-Up**

1. Fill the tank half full with water
2. Add the required amount of Accu Labs 524
3. Fill the tank to final volume and mix thoroughly

## **Concentration**

Automatic machines with dip times of 15 seconds or longer may require lower concentrations at ½ oz gal.

Chromating of zinc base die-casting is accomplished by using a concentration of 1-4oz/gal depending on film color desired.

Accu-Labs 524 will produce clear to iridescent yellow protective coatings on silver or silver plate.

Clear Coatings-use Accu-Labs 524 at ½ oz/gal at short dip times.

Protective yellow chromate films, use at 1oz/gal for approximately 15 seconds dip time or until desired color is obtained.

## **Operating Guidelines:**

Concentration	1 oz/gal
CR+6	1500-2500ppm
Acid Number	8-10
PH	1.8
Temperature	65 –75°F
Time	5-15
Agitation	Preferred

If film forms too slowly, warm Accu-Labs 524 solution to 85° - 95°F (28°-32°C). If film becomes lighter than desired, add approximately 20% of the original make-up.

## Apparatus:

10 ml pipette  
250 ml Erlenmeyer flask  
5 ml graduated cylinder

## Procedure:

1. Pipette a 10 ml sample of Accu-Labs 524 solution into a 250 ml Erlenmeyer flask.
2. Add 50 ml deionized water or distilled water.
3. Add 10 ml concentrated hydrochloric acid.
4. While swirling, add 10 ml of 10% potassium iodide solution.
5. Titrate with 0.1N sodium thiosulfate until burgundy color begins to lighten. Then add a few drops of starch indicator solution.
6. Continue titration until dark blue color turns to a clear bluish green.

## CALCULATION

$$(\text{mls of 0.1N Sodium thiosulfate}) \times 173.4 = \text{ppm Cr+6}$$

## Replenishment

An addition of 0.2 oz/gal (1.5 gm/l) Accu-Labs 524 will increase the Cr+6 content approximately 300 ppm.

**HANDLING** Always wear eye and protective gear when working with or handling this product; read MSDS prior to use.

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