

ACCU-LABS INC.

4831 S. Whipple Avenue
Chicago IL 60632
Phone: 773.523.3100 Fax: 773.523.4008
www.accu-labs.com

A2LA Accredited ISO/IEC 17025:2005 Certificate # 2558.01

523-A

YELLOW HEXAVALENT CHROMATE FOR ZINC

ACCU-LABS 523-A is a yellow, iridescent, bright liquid chromate conversion coating for electroplated zinc. It produces an exceptionally bright and adherent, iridescent coating on zinc plated work; from all types of zinc plating baths. **EXCELLENT ADHESION FOR ZINC CHLORIDE PLATED WORK.**

The chromate coating produced will withstand 100 to 200 hours neutral salt spray and will meet all government and most other specifications calling for a yellow iridescent chromate on zinc plated parts. In addition to the high corrosion resistance, **ACCU-LABS 523-A** coatings form an excellent base for paint and the pleasing appearance makes them suitable for decorative applications.

EQUIPMENT

Koroseal, rubber, or plastisol lined steel, ceramic; polyethylene, fiberglass, or stainless steel tanks are satisfactory for use with **ACCU-LABS 523-A** solutions.

OPERATING GUIDELINES

Concentration	1 - 3 % by volume 523-A
Immersion Time	8 - 40 seconds
Temperature	60 - 90°F
pH Range	1.2 - 2.0

On zinc die casting, an acid dip (sulfuric acid 1-2 %) is usually required before yellow chromating.

CONTROL: During normal operation, the concentration of ACCU-LABS 523-A is gradually diminished and the color becomes lighter. The addition of about ¼ to ½ of the initial makeup of ACCU-LABS 523-A will usually restore the proper color. If the bright multi-hued coatings are desired but cannot be obtained within the given concentrations because of the particular cycle, the addition of 0.1 ml of concentrated sulfuric acid per gallon of dip will frequently produce the desired color.

ACCU-LABS 523-A will produce iridescent coatings on zinc that will vary in color from light yellow with a large amount of green and red hues to a deep tan with a small amount of iridescence. Shorter dip times and lower concentration of ACCU-LABS 523-A will favor the lighter multi-hued coatings.

When used on cadmium, ACCU-LABS 523-A produces a bronze color with slight iridescence.

ANALYTICAL PROCEDURE

- Pipette 10ml sample into 250ml Erlenmeyer flask
- Add 100ml DI water
- Add 2 grams ammonium bifluoride crystals
- Add 15 ml hydrochloric acid
- Add 10 ml 10% potassium iodide solution
- Add 2-5 ml of starch indicator solution
- Titrate with 0.1N sodium thiosulfate solution until the dark blue color turns light clear

CALCULATION: mls thosulfate x 0.192 = % by volume 523-A

SAFETY: This product contains chromates and is highly acidic. Contact of salts or solution with skin or eyes should be avoided. In case of contact, flush the contaminated area with a large volume of water. When handling this product, protective clothing, i.e., rubber apron, gloves, boots, and goggles should be worn. Read the Material Safety Data sheet for this product before using.

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