

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

622 TRIVALENT BLUE CHROMATE FOR ZINC

ACCU-LABS 622 TRIVALENT BLUE is a liquid trivalent chromate product which provides a clear-blue bright chromate conversion coating on electroplated zinc. **ACCU-LABS 622 TRIVALENT BLUE** provides a thicker, bluer finish than conventional blue bright dips providing up to 48 hours salt spray protection to white rust per ASTM 117-B.

1. Provides a blue-bright finish that is reproducible load after load.
2. Equally effective for alkaline non-cyanide to acid chloride, barrel to rack.
3. High tolerance to impurities and yellowing.
4. Contains no fluoride compounds.
5. Low zinc removal properties at low current densities.
6. Decreases waste treatment requirements due to low trivalent chrome characteristics.
7. Retains blue-bright finish and good corrosion resistance after 400°F bake cycles of 1 to 4 hours.

OPERATING GUIDELINES:

ACCU-LABS 622:	2 - 10% by volume with water
Temperature:	65°- 110°F
pH:	1.5-2.5 (2.2 optimum)
Dwell Time:	15-60 seconds

SOLUTION CONTROL

The concentration of **ACCU-LABS 622 TRIVALENT BLUE** is consumed by the chromating process; and by drag in and drag out, diluting the bath. Air agitation is recommended. Filtration can greatly extend the solution life.

A start-up concentration range of 2-4% is recommended. The operating solution is typically maintained by pH monitoring and observing the work being processed. Factors such as temperature, dwell time, drag-in and drag-out can affect the usage rate.

CHROMIUM TITRATION METHOD

1. Pipette a 20 ml sample into a 250 ml Erlenmeyer flask.
2. Add 50 ml DI water.
3. Add 25 ml of 1N (40 g/l) sodium hydroxide solution
4. Add 0.5 ml (10 drops) of 35% hydrogen peroxide.
5. Boil for at least 1 hour; during this time boil the solution down to nearly dry (5-10 mls). Then carefully add 50 ml DI water and 1 ml nickel sulfate (10%) solution and continue boiling for an addition 10-20 minutes.
6. Remove from hot plate and allow solution to cool.
7. After cooling add 50 ml DI water, 1 gram of ammonium bifluoride.
8. Add 20 mls of 25% sulfuric acid and 10 mls potassium iodide solution (10%).
9. Immediately titrate the solution with 0.1N sodium thiosulfate solution to a straw colored tint then add 2-6 mls starch indicator. Continue titrating from a blue to a colorless end point. Mls of thiosulfate x 0.355 = % by vol. Accu-Labs 622

Reduce pH with 622 or increase with dilute liquid caustic soda; however, it is preferable to allow the pH to rise by processing parts rather than by caustic additions especially on new bath start up.

EQUIPMENT

Process tanks may be polypro, PVC or Koroseal lined steel. Heating and/or cooling coils may be made of titanium, 300 series stainless steel, Teflon, or use quartz heaters.

Accu-Labs 622-M solution concentrations may be controlled by analysis of chromium using a suitable AA procedure. The total chromium content of Accu-Labs 622 is 25 grams per liter.

SAFETY

ACCU-LABS 622 TRIVALENT BLUE contains trivalent chrome, compounds, and is acidic in nature. Avoid contact with skin or eyes. In case of contact flush the contaminated area with water. Eye protection, gloves and aid resistant footwear should be worn when handling and working with this product.

Refer to ***Material Safety Data Sheet*** for more detailed explanation regarding handling and safety.

NON-WARRANTY

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