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LAC-CHRO-SEAL

LACQUER FOR CHROMATED ZINC DEPOSITS TECHNICAL DATA

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LAC-CHRO-SEAL

*NON-HAZARDOUS LACQUER COATING FOR ENHANCED CORROSION
RESISTANCE ON ELECTROPLATED DEPOSITS AND BASE METALS*

LAC-CHRO-SEAL	is non-flammable , eliminating risk of handling and storing a hazardous material.
LAC-CHRO-SEAL	air dries quickly to a very thin, clear, glossy finish with excellent flexibility allowing the parts to be immediately boxed or packaged.
LAC-CHRO-SEAL	eliminates fingerprinting on work.
LAC-CHRO-SEAL	provides significant protection on work exposed to high humidity conditions.
LAC-CHRO-SEAL	is non-foaming and may be applied to a variety of parts and metal surfaces via dip tank or by spray.
LAC-CHRO-SEAL	solutions have low viscosity, preventing excessive coating from drip build-up, rundown or pooling in recessed areas of parts.
LAC-CHRO-SEAL	prevents flash rusting of un-plated areas during drying, such as inside of steel tubing.
LAC-CHRO-SEAL	is easily strippable in ordinary alkaline soak cleaners, making it easier to re-plate work and also to keep racks clean.

OPERATION

	<u>RANGE</u>	<u>OPTIMUM</u>
Concentration:	15% - 30% by volume	25% by volume
pH:	7.2 - 8.5	7.9
Temperature:	65 - 100° F (18 - 38° C)	80° F (27° C)
Immersion Time:	10 - 30 seconds	15 seconds

LAC-CHRO-SEAL is most commonly applied to chromated zinc deposits. The parts should be rinsed after chromate, then treated with the LAC-CHRO-SEAL and allowed to dry before handling.

REPLENISHMENT

LAC-CHRO-SEAL is consumed by dragout and must be replenished on that basis.

Example:

The dragout per day for an average rack plating tank is 1% by volume. If the plating tank is 5 times the size of the LAC-CHRO-SEAL tank, the LAC-CHRO-SEAL tank will lose approximately 5% by volume per day. Since the optimum initial charge of LAC-CHRO-SEAL is 28% by volume (56 gallons for a 200 gallon tank), then 5% of this initial charge or 2.8 gallons must be added each day (along with water to keep the total volume at 200 gallons).

Note: For a precise determination of LAC-CHRO-SEAL concentration, a sample of the working solution should be sent to the Columbia Chemical service laboratory.

pH CONTROL

The pH of LAC-CHRO-SEAL dip tank can change due to drag-in of rinse water, or solution from the plating or chromate tanks. The pH should be checked daily with a pH meter and a visual inspection should be made to the tank periodically. Drag-in of acidic materials can precipitate out the active ingredient in LAC-CHRO-SEAL. If a whitish precipitate appears the pH should be raised with ammonium hydroxide.

TEMPERATURE

Temperature of the dip tank affects the dry time of LAC-CHRO-SEAL. In order to speed-up the dry time higher temperatures may be used. LAC-CHRO-SEAL air dries quickly under normal operating conditions, but it may also be dried by forced hot air up to 300° F (150° C).

ANALYTICAL PROCEDURE

TITRATION PROCEDURE

1. Pre-weigh a watch glass or small beaker and record weight as Weight #1.
2. Pipette 10 ml of working LAC-CHRO-SEAL dip tank onto watch glass or into beaker.
3. Let liquid evaporate. Watch glass or beaker may be placed over low heat to facilitate evaporation. Take sample to dryness approximately, 1-2 hours.
4. Weigh watch glass or beaker containing dried sample. Record as Weight #2.
5. Dry sample again for 1 hour. Re-weigh and record as Weight #3.
6. Compare Weight #2 and Weight #3. If both weights are the same then this is the Dried Weight, proceed to step #7. If Weight #3 is less than Weight #2 then dry the sample further until there is no difference between these weights. Record this as the Dried Weight. Proceed to step #7.
7. Determine concentration factor with the following formula;

$$(\text{Dried Weight} - \text{Weight \#1}) \times 62.9 = \% \text{ LAC-CHRO-SEAL in dip tank}$$

Working bath range = 25 – 30% by volume

Optimum 28% by volume

*** If factor is less than 25%, then add the necessary volume of LAC-CHRO-SEAL to bring back to optimum working conditions. Mix well.

HANDLING & STORAGE

LAC-CHRO-SEAL is non-toxic and non-hazardous. There are no special handling requirements other than using normal caution as when handling any industrial chemical such as wearing protective clothing, rubber gloves and eye protection. Store away from oxidizing agents.

FREEZABILITY: As with most chemical products, it is preferable that freezing be avoided. However if freezing should occur during transportation or storage, directions for handling the products covered in this technical data sheet are as follows:

If LAC-CHRO-SEAL freezes, simply allow the container to completely thaw and bring to room temperature of 70-75F/ 21-24C. Thoroughly mix to bring back to original condition.

NON-WARRANTY

The data in this bulletin is believed by Columbia Chemical Corp. to be accurate, true, and complete. Since, however final methods of use of this product are in the hands of the customer and beyond our control, we cannot guarantee that the customer will obtain the results described in this bulletin, nor can we assure any responsibility of the use of this product by the customer in any process which may infringe the patents of third parties.