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META-TREAT EN

Waste Treatment Additive

Meta-Treat EN is a waste treatment additive for spent Metal-Chem Inc. electroless nickel solutions. This process reduces nickel metal levels from 6,000 ppm to below 5 ppm in 2-4 hours without creating sludge.

The Meta-Treat EN process is simple, inexpensive and can be carried out in your EN tank thus eliminating the need to invest in costly waste treatment equipment.

The Meta-treat EN process eliminates serious liability risks EN platers assume when they have their spent solutions hauled away for treatment or "recycling."

The Meta-Treat EN process is designed for use on all Metal Chem Electroless Nickel Plating baths.

The Meta-Treat EN 9 process offers the following distinct advantages and related benefits:

<u>ADVANTAGES</u>	<u>BENEFITS</u>
*Effective removal of nickel	*Very low treatment cost
*Quick and easy to implement	*No special training
*Treatment right in EN tank	*No capital expense
*Does not create a sludge	*No hauling or landfilling
*No hauling of spent baths	*Eliminates liability

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For additional information on waste treatment alternatives please contact the Metal Chem. Tech Service Department.

ELECTROLESS NICKEL CONTROLLED PLATE-OUT PROCEDURE

- 1.) Adjust pH of spent bath to 9.0 with ammonium hydroxide. Typically, 10% b.v.is required. Bath will turn blue.
- 2.) Heat bath to 170 °F.
- 3.) Immerse into the bath .8 oz/gal (6 g/l) of coarse steel wool. * (5 lbs. Of steel wool is required to treat 100 gallons.)
- 4.) Add 1 gallon of Meta-Treat EN for every 100 gallons of EN bath to be treated.
- 5.) After 1 hour increase to 190-205 °F.
- 6.) Monitor nickel level and add 1 gallon of Meta-Treat EN every 45 minutes for 2-3 hours or until nickel metal is below 2.0 ppm.

TYPICAL RESULTS:

TIME: 3.0 HOURS (45 Minutes in the lab)

NICKEL METAL: 1.0-4.0 PPM

APPROX. AMMONIA USED: 10% b.v.

META-TREAT EN 3.5 gal/100 gallon bath

READ THE PRODUCTS MATERIAL SAFETY DATA SHEET PRIOR TO USING!

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Our recommendations for use of this product are based upon our skill and experience. However, since the use of this product is beyond our control, no guarantee, expressed or implied, is made as to the effects of such use, or to the results obtained.

^{*} Some steel wool may require acid activation.

^{**} For sources of bulk rolls of steel wool contact Metal Chem Inc.