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# Miraclean IC-290

Immersion Cleaner  
*Technical Data*

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## GENERAL DESCRIPTION

**Miraclean IC-290** is a heavy-duty phosphate-free powdered degreaser for use in soak applications. It is for use only on steel and brass.

## NORMAL USE

This product is diluted with water before usage. Determine proper ratio based on the volume of the tank.

For light-duty soil removal, mix **Miraclean IC-290** at 1 oz. to 4 oz. per gallon with water.

For heavy-duty soil removal, mix **Miraclean IC-290** at 8 oz. to 12 oz. per gallon with water.

Operation temperatures are 140° to 180° F.

## ADVANTAGES

1. Reduced reject rate.
2. Biodegradable.
3. Can be used in soak tanks with mechanical agitation.
4. Prevents oil contamination of plating solutions.
5. Free rinsing.
6. Rapid cleaning action and good soil penetration.
7. Packaged as a dry product for easiest and most economical shopping, storage, and handling.

## PROCESS

### Steel – Oil Removal

1. Soak – **Miraclean IC-290**
2. Water Rinse
3. Electroclean – **Miraclean EC-179**
4. Water Rinse
5. Acid – **Acid Salt 829**
6. Water Rinse
7. Electroplate

## NORMAL CONTROL

**Analytical Method** (Equipment available from Chautauqua Chemicals Co.)

1. Pipette a 10 mL sample into a 250 mL Erlenmeyer flask.
2. Add 25 mL of distilled water.
3. Add 5 drops of phenolphthalein indicator.
4. Titrate with 0.50N hydrochloric acid until pink color disappears.
5. Calculation: Concentration of **Miraclean IC-290** (oz. per gallon) = mLs of 0.50N HCl x 0.78

## HANDLING AND SAFETY CONSIDERATIONS

Consult MSDS sheet on this product for handling considerations, hazard information, and first aid procedures.

## OTHER INFORMATION

*No warranty, expressed or implied of merchantability fitness for a particular purpose or otherwise, is made. Buyer assumes all risk of use, storage and handling. Chautauqua Chemicals Company, Inc. shall not be made liable for any incidental or consequential damages arising directly or indirectly in connection with the purchase, storage, handling or disposal of this product.*

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