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COLCLEAN ELECTRO 237L MC

TECHNICAL DATA
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COLCLEAN ELECTRO 237L MC *LIQUID ELECTROCLEANER ADDITIVE SYSTEM*

COLCLEAN ELECTRO 237L MC	is a liquid builder-surfactant composition designed for use as an additive to liquid caustic soda to form a ready to use electro cleaning solution.
COLCLEAN ELECTRO 237L MC	can be used where single tank cleaning of steel, copper, brass, and zinc base die casting is needed.
COLCLEAN ELECTRO 237L MC	is free-rinsing and contains a surfactant system designed for the removal of many different soils.
COLCLEAN ELECTRO 237L MC	can be used as a soak and an electrocleaner.

OPERATING PARAMETERS

Temperature	160 -190° F
Time	1 - 3 minutes or as required
Current Density (Anodic)	75 - 125 ASF

Adjust these conditions to provide optimum cleaning.

STEEL SUBSTRATES

COLCLEAN ELECTRO 237L MC	7 - 9% by volume (8% Optimum)
50% Liquid Caustic Soda	1.25 - 2.5% by volume (2% Optimum)

COPPER SUBSTRATES

COLCLEAN ELECTRO 237L MC	7 - 9% by volume (8% Optimum)
50% Liquid Caustic Soda	1.0 - 1.5% by volume (1.25% Optimum)

ZINC DIE-CAST SUBSTRATES

COLCLEAN ELECTRO 237L MC	7 - 9% by volume (8% Optimum)
50% Liquid Caustic Soda	0.8 - 1.2% by volume (1% Optimum)

SOLUTION MAKEUP

1. Charge 3/4 of the water in the tank.
2. Add the COLCLEAN ELECTRO 237L MC and mix.
3. Add liquid caustic slowly with constant agitation to prevent eruption.
4. While still agitating, adjust to final volume with water.
5. Heat the solution to operating temperature.

ANALYTICAL PROCEDURE

1. Obtain a sample of the COLCLEAN ELECTRO 237L MC working solution in a clean container.
2. Pipette a 10 mL aliquot and transfer to a titrating flask.
3. Add 4 to 5 drops phenolphthalein indicator.
4. Titrate with 1 N HCl from red to a colorless endpoint. Add a few more drops of indicator solution. If the solution turns pink, add two more drops of 1 N HCl. Repeat until the solution remains colorless when the phenolphthalein indicator is added.
5. Record the number of mLs required.

$\text{mLs } 1 \text{ N HCl} \times 0.58 = \% \text{ by volume concentration of the 50\% Liquid Caustic.}$

Add appropriate ratio of COLCLEAN ELECTRO 237L MC to 50% Liquid Caustic as per initial tank.

HANDLING & STORAGE

Columbia Chemical recommends referring to the specific product Safety Data Sheets for safety, handling, and storage precautions.

NON-WARRANTY

The data contained 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 assume responsibility of the use of this product by the customer in any process which may infringe the patents of third parties.