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COLCLEAN ELECTRO 411L MC

TECHNICAL DATA
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COLCLEAN ELECTRO 411L MC *LIQUID ELECTROCLEANER ADDITIVE SYSTEM*

COLCLEAN ELECTRO 411L 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 411L MC	provides excellent detergency to remove processing oils, drawing compounds, smut, and light rust from steel surfaces.
COLCLEAN ELECTRO 411L MC	is easy to pump with no dusting or caking like powdered cleaners.
COLCLEAN ELECTRO 411L MC	uses low heat of solution when dissolving with less change of boil over when making additions.
COLCLEAN ELECTRO 411L MC	allows use of conductivity controller for automatic additions using metering pumps.

OPERATING PARAMETERS

COLCLEAN ELECTRO 411L MC:	3 to 6% by volume (4% Optimum)
50% Liquid Caustic Soda:	5 to 7% by volume (6% Optimum)
Temperature:	160° to 190° F
Time:	1 to 3 minutes or as required
Current Density (Anodic):	75 to 125 ASF

Adjust these conditions to provide optimum cleaning.

SOLUTION MAKEUP

1. Charge 3/4 of the water in the tank.
2. Add the COLCLEAN ELECTRO 411L 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 411L 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.

mLs 1 N HCl x 0.58 = % by volume concentration of the 50% Liquid Caustic.

Add 1/2 gallon of COLCLEAN ELECTRO 411L MC for every 1 gallon of 50% Liquid Caustic added.

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.