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COLCLEAN ELECTRO 231

TECHNICAL DATA
6-8-2020

COLCLEAN ELECTRO 231 HEAVY DUTY ALKALINE ELECTROCLEANER

COLCLEAN ELECTRO 231	is a non-chelated, free-flowing granular blend of cleaning agents, builders, and surfactants.
COLCLEAN ELECTRO 231	is a multi-metal electrocleaner for copper, brass, and ferrous substrates.
COLCLEAN ELECTRO 231	exhibits good emulsification and suspension qualities.
COLCLEAN ELECTRO 231	specialty blend of wetting agents develops fast wetting of blind areas and has exceptional rinsing properties.
COLCLEAN ELECTRO 231	is a phosphate-free formulation.

OPERATING PARAMETERS

<u>SUBSTRATE</u>	<u>TIME</u>	<u>CONCENTRATION</u>	<u>TEMPERATURE</u>	<u>CURRENT DENSITY</u>
Cuprous Alloys (Direct)	0.5 - 2 min	4 -6 opg	120 - 180° F	10 - 30 ASF
Cuprous Alloys (Reverse)	5 - 15 sec	4 - 6 opg	121 - 180° F	11 - 30 ASF
Steel (Reverse or Direct)	as needed	7 - 8 opg	160 - 190° F	12 - 40 ASF

Adjust the above conditions to provide optimum results.

ANALYTICAL PROCEDURE

1. Pipet 10.0 mL sample into a 250 mL Erlenmeyer flask.
2. Add 3 drops phenolphthalein.
3. Titrate with 1.0N HCl to color change from pink to clear.

CALCULATION: Concentration (opg or % by volume) = mL Titrant x 0.725

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.

