DATE: APRIL 6, 2004

EMERGENCY - MARTRON 704-289-1934 CHEMTREC 800-424-9300

REF # - MFC-000513

MARTRON ECM-117

ELECTROLYTIC CLEANER FOR STEEL

Martron ECM-117 is a highly alkaline, heavy duty, electrolytic cleaning compound with chelating action which rapidly removes smut, light surface rust, finger prints, and a variety of soils from steel. Martron ECM-117 is a high detergency product, therefore produces a clean bright and soil free surface. Martron ECM-117 has low foaming action, producing a compact foam blanket minimizing caustic spray and hydrogen explosions. Martron ECM-117 has been formulated primarily for use on ferrous base metals, however, at lower temperatures, concentrations and current densities it can be used to clean copper, brass, and other copper base alloys.

SECTION 1: FEATURES

Martron ECM-117 is easy to make up and use. It is a free-flowing ductless powder that dissolves easily.

Martron ECM-117 removes all surface contaminants from processed parts. This eliminates drag-in of contaminants to plating baths, thereby reducing the need for frequent bath skimming.

Martron ECM-117 has excellent soil holding capability. This results in longer solution life and less down time.

Martron ECM-117 is multi-purpose product. It can be used on a variety of base metals as both an anodic and cathodic electro cleaner as well as a light duty soak cleaner.

SECTION 2: OPERATING PARAMETERS

RANGE

Concentration8 - 10 oz./gal.Temperature160 - 180°F.CurrentReverse, direct, p.r.Current Density40 - 70 amps/sq. ft.

SECTION 3: SOLUTION MAKE UP

The cleaning bath is easily prepared by filling the cleaning tank to approximately half of its operating volume with water and slowing adding, with stirring, the appropriate amount of **Martron ECM-117**. The tank is then heated to the desired operating volume.

SECTION 4: CONTROL

- 1. Pipette a 10 ml. sample of the cleaning bath into a 250 ml. flask.
- 2. Add 5- 10 drops of Modified Methyl Orange Indicator.
- 3. Add approximately 50 ml. distilled water.
- 4. Titrate with 1.0 N Sulfuric Acid to first red endpoint.

CALCULATION:

ml. of 1.0 N Sulfuric Acid X .65 = oz./gal. Martron ECM-117.

SECTION 5: CAUTION

Martron ECM-117 contains highly alkaline ingredients. Contact of it or its solution with skin or eyes could cause severe burn. Protective clothing, gloves, glasses, etc. should be worn. In case of contact, flush with plenty of water and seek medical attention.

SECTION 6: DISCLAIMER

The information contained herein is based on data developed through laboratory and production experience and is believed to be correct. However, *Martron Inc.* makes no warranty, expressed or implied regarding the accuracy of the data or the results to be obtained from the use thereof. *Martron Inc.* assumes no responsibility for injury from the use of the product described herein.

Issued 01/01/93 Revised 01/03/03