

TECHNICAL

**INSTRUCTIONS** 

**DATA SHEETS** 

# METROCLEAN MC 103 HEAVY DUTY ALKALINE SOAK CLEANER

# **INTRODUCTION:**

METROCLEAN MC 103 is a heavy duty, alkaline soak cleaner for still tank and barrel cleaning operations. It is particularly suited to plating, porcelain enameling and other critical operations requiring the utmost in cleanliness.

METROCLEAN MC 103 is a non-phosphate, low chelated electro-cleaner for all metals, it has exceptional detergency for removal of shop dirt and fabricating oil, exhibits good conductivity for maximum detergent action. In addition, METROCLEAN MC 103 has tremendous soil tolerance-cleans and rinses well ever under the heavy soil loads of barrel wasting screw and heater machine products.

# **PRODUCT FEATURES:**

- Multi-purpose, high efficiency soak cleaner.
- High rate of emulsification.
- Phosphate free.
- Tremendous soil tolerance.
- Fully biodegradable surfactant system.
- Economy.
- Free rinsing.

#### **EQUIPMENT REQUIREMENT:**

Processing tanks fabricated of cold rolled steel are satisfactory. Racks and other equipment should also be fabricated of the same materials. Heating of solutions can be accomplished by using steel steam coils, immersion heaters or gas flames. Tank ventilation should be provided to control caustic fumes from hot solutions.

# **OPERATION CONDITIONS:**

	<u>Optimum</u>	Range
Concentration	60 g/l	4 <u>5 – 60</u> g/l
Temperature	80 °C	70 – 80 °C
Time (minutes)	2	1 – 3 minutes

The time required will depend upon the soil conditions, usually 1-3 minutes are required. In plating lines, the soak cleaning should be followed by a rinse and then electro-cleaning. The rinse may be a cold or warm overflowing rinse, or a spray rinse. METROCLEAN MC 103 can also be used on those automatics having no provision for a rinse between the soak and the first electro-cleaner.

Soak Operations on Non-Ferrous Metals:

Concentration	50 g/l	45 –60 g/l
Temperature	70 °C	70 – 80 °C
Time (minutes)	2 minutes	1 – 5 minutes

When cleaning brass in METROCLEAN MC 103, the temperature should be kept as low as practical and both the soak and the transfer time as short as possible to minimize staining or tarnishing. At 50 g/l,  $70^{\circ}$ C, the vary slight tarnish obtained on brass, in 1-5 minutes of cleaning time, can easily be removed by a mild acid dip.

#### **Barrel Cleaning Operations**

Concentration	45 g/l	45 –60 g/l
Temperature	50 °C	50 – 60 °C
Time (minutes)	3 minutes	2 – 5 minutes

The temperature in many barrel cleaning operating is limited by the materials of construction of the barrel. The tremendous wetting and cleaning capacity of METROCLEAN MC 103 makes it particularly advantageous in these cases.

#### **SOLUTION CONTROL:**

Take a 10mls sample of the METROCLEAN MC 103 solution. Titrate with 1N Sulphuric acid using Phenolphthalein as an indicator. (red to colorless)

Metroclean MC 103 g/l =  $6.1 \times mls H_2SO_4$ 

# PACKAGING:

METROCLEAN MC 103 is a free flowing, non-dusty, white granular material supplied in non-returnable polyethylene lined fiber bags.

#### WASTE DISPOSAL:

METROCLEAN MC 103 solutions are alkaline, neutralize to pH 6 to 8 with an acid and discharge to server.

The acid must be added slowly and with caution. Avoid eye or skin contact and wear protective clothing and safety goggles.