

## **BASIC/Lean SC-10**

### **An Alkaline Soak Cleaner for Copper**

#### **Product Description**

BASIC/Lean SC-10 is a highly concentrated, non-etching, alkaline cleaner/degreaser designed specifically to remove organic residues from copper foil to assure a uniformly clean surface prior to further processing. BASIC/Lean SC-10 is particularly effective at penetrating and removing organic material from porous copper surfaces. It can be operated at concentrations of 5-30% and temperatures of 120-180°F.

#### **Performance Features**

- BASIC/Clean SC-10 was specifically formulated to prepare copper surfaces prior to further processing improving uniformity of micro-etching, oxide deposition, etc.
- BASIC/Lean SC-10 penetrates and remove organic residues from copper foil; including fingerprints, light oils, and photoresist residues.
- BASIC/Lean SC-10 is highly concentrated.
- BASIC/Lean SC-10 is available in formulations suitable for spray or immersion applications.

#### **Physical Specifications**

Physical State	Liquid
Appearance	Clear to Light Yellow Solution
Odor	Mild Detergent
Freeze/Thaw Stability	Stable
Specific Gravity	1.3
pH	>12

#### **Equipment Requirements**

Tanks: Constructed of polypropylene, polyethylene, PVC, or CPVC.

Racks: Plastisol coated steel or 316 stainless steel.

Heaters: Constructed of quartz, 316 stainless steel, or Teflon.

Ventilation: Recommended

Filtration: Continuous filtration employing 10 micron polypropylene filter cartridges are recommended.

# Technical Data Sheet

## Product Make-Up

BASIC/Lean SC-10 MUST BE DILUTED PRIOR TO USE. The operating strength of BASIC/Lean SC-10 can be adjusted within the range of 5-30% based upon requirements. In a typical application, it is recommended BASIC/Lean SC-10 be diluted to 10% by volume in deionized water as follows:

1. Make sure the tank is clean and free of residues, paying special attention to heater sheathings and manifold plumbing.
2. Fill the sump with deionized water to approximately 50% of the final desired volume.
3. Add the desired volume of BASIC/Lean SC-10 concentration.
4. Dilute to volume with deionized water, mix, and heat to temperature.

## Operating Parameters

The performance of BASIC/Lean SC-10 increases with elevated temperature. Optimum operating temperature is between 120 - 180°F. Below are the recommended operating guidelines for BASIC/Lean SC-10.

Temperature	120 - 180°F
Immersion Time	2-5 minutes
Agitation	Mechanical or Spray
Ventilation	Recommended
Filtration	Optional

Under normal operating conditions, one gallon of a BASIC/Lean SC-10 working bath (10% concentration by volume) will clean approximately 1,000 surface square feet or 166 - 18"x24" panels.

If the process is being operated as a bleed and feed, Seacole's chemical control system or similar apparatus should be adjusted to make additions of 0.08 gallons (equivalent to Seacole's chemical control system operating for 10 seconds at 5 GPM incoming water flow) of working bath for every 30 panels processed.

## Control and Replenishment

The concentration of BASIC/Lean SC-10, and appropriate additions of BASIC/Lean SC-10 concentrate can be determined by following the procedure below. The volume of the sump should be maintained with additions of deionized water.

## Technical Data Sheet

### Determination of BASIC/Lean SC-10 Concentration

Equipment Required	Reagents Required
Buret, 50 ml	Bromocresol Purple Indicator
Erlenmeyer Flask, 250 ml	Hydrochloric Acid Standardized 0.10 N
Pipet, 5 ml	

#### Procedure

1. Pipet a 5 mls sample of the bath into a 250 ml Erlenmeyer flask containing 50 ml of deionized water.
2. Add approximately 10 drops of bromocresol purple indicator and titrate with standardized hydrochloric acid from purple to the first stable yellow endpoint. Record the number of ml of titrant required.

#### Calculations

$$\frac{A \times B \times 15.4}{C} = \% \text{ by volume BASIC/Lean SC-10}$$

Where      A      =      ml of titrant required  
              B      =      N of titrant (0.10)  
              C      =      sample volume in ml (5)

#### Additions

$$\frac{(A - B) \times C}{100} = \text{Volume of BASIC/Lean SC-10 to add}$$

Where      A      =      desired % by volume  
              B      =      actual % by volume  
              C      =      volume of bath

### Safety and Handling

Read and understand this products MSDS before handling.

### Waste Treatment

Individual users should verify the nature of spent solutions to assure compliance with local, state, and federal regulations. Contact Seacole for specific details and/or further waste treatment recommendations.

### Ordering Information

BASIC/Lean SC-10 is available in 5-gallon pails and 55-gallon drums.

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