

Product Code: 0005245 Revised Date: 5/01/2025

# **ENVIRO/Bright SC-2**

#### **Product Description**

ENVIRO/Bright SC-2 is a concentrated, acidic cleaner used to clean and deoxidize unfused tin-lead surfaces prior to hot oil fusing. ENVIRO/Bright SC-2 is designed to remove metallic oxides, light oils and organic contaminants, while at the same time neutralizing alkaline etch residues. Unlike conventional solder conditioners, ENVIRO/Bright SC-2 can withstand significant copper contamination prior to losing its effectiveness. The product is suitable for either spray or immersion applications and is ideally suited for feed and bleed applications.

#### **Performance Features**

• ENVIRO/Bright SC-2 is specifically formulated to remove fingerprints, light oils, alkaline etch residue and metallic oxides from unfused tin-lead surfaces.

- ENVIRO/Bright SC-2 offers a wide process latitude and is ideally suited for feed and bleed operation.
- ENVIRO/Bright SC-2 is a concentrate employed at 10 40% by volume and can be replenished on a feed/bleed basis.
- ENVIRO/Bright SC-2 tolerates copper concentrations exceeding 800 mg/l improving performance and minimizing dump frequency.

#### Physical Specifications

Physical State	Liquid
Appearance	Transparent Blue
Odor	Mild Detergent
рН	< 1
Freeze/Thaw Stability	Stable
Specific Gravity	1.1

#### **Equipment Requirements**

Tanks: Constructed Of Polypropylene, Polyethylene, PVC, Or CPVC.

Racks: Constructed of Titanium Or Plastisol Coated Steel. Hastalloy C Is Adequate But Not Recommended.

Heaters: Constructed Of Quartz Or Teflon.

Ventilation: Recommended

Filtration: Continuous Filtration Employing 10-Micron Polypropylene Filter Cartridges Is Recommended.

#### Product Make-Up

ENVIRO/Bright SC-2 MUST BE DILUTED PRIOR TO USE. The operating strength of ENVIRO/Bright SC-2 can be adjusted within the range of 10-40% based upon degree of cleanliness/oxidation of the tin-lead surface. In a typical spray application, it is recommended ENVIRO/Bright SC-2 be diluted to 10% by volume in deionized water as described below.

NOTE: Increasing either or both the temperature and spray pressure improves performance, typically allowing for lower concentrations of SC-2 to be employed.

1. Make sure the tank is clean and free of residue, 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 ENVIRO/Bright SC-2 concentration.

4. Dilute to volume with deionized water, mix, and heat to temperature.

#### **Operating Parameters**

The performance of ENVIRO/Bright SC-2 increases with elevated temperature. Optimum operating temperature is 120°F. Below are the recommended operating guidelines for the cleaner.



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Temperature	70-120°F
Immersion Time	30 - 120 Seconds
Agitation	Mechanical Or Spray
Ventilation	Recommended
Filtration	Optional

#### **Control and Replenishment**

Under normal operating conditions, the product will perform until the total metal concentration exceeds 5,000 mg/l and/or the copper concentration exceeds 900 mg/L.

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

The concentration of ENVIRO/Bright SC-2, and appropriate additions of ENVIRO/Bright SC-2 concentrate can be determined by following the procedure. The volume of the sump should be maintained with additions of deionized water.

#### **Determination Of Copper Concentration**

Equipment Required	Reagents Required
Buret, 50 ml	Ammonium Hydroxide/Ammonium Chloride
Erlenmeyer Flask, 250 ml	Buffer Solution
Pipet, 100 ml	EDTA Standardized 0.10 M
	PAN Indicator

#### Procedure

1. Pipet a 100 ml sample of the bath into a 250 ml Erlenmeyer flask containing 50 ml of ammonium hydroxide/ammonium chloride buffer.

2. Add 4-5 drops of PAN indicator and titrate with standardized EDTA from blue to the first stable light green endpoint. Record the number of ml of titrant required.

## Calculations

A x B x C x 1,000 = mg/L copper D Where A = ml of titrant required B = M of titrant (0.1) C = M.W. of copper (63.54) D = sample volume in ml (100)The bath should be dumped when the copper concentration reaches 900 mg/L.

### Safety and Handling

Read and understand MSDS before handling.



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# **Technical Data Sheet**

#### 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**

ENVIRO/Bright SC-2 is available in 5-gallon pails and 55-gallon drums.



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