

## ENVIRO/Flow HAL-40

### A Non-Foaming, Non-Drying Hot Air Leveling Fusing Flux

#### Product Description

ENVIRO/Flow HAL-40 (HAL-40) is a medium - high viscosity hot air solder leveling flux designed to assure rapid and complete soldering of printed wiring boards processed through Argus® vertical hot air leveling equipment. HAL-40 will remove light copper oxides, deposit a non-evaporating protective film on the copper to minimize copper reoxidation prior to solder leveling, maximize solder wetting of the copper by reducing the surface tension at the copper/solder interface, and enhance the reflectivity of the solder finish. Additionally, HAL-40 will reduce solder adhesion to the laminate and/or soldermask, minimizing solder tailings and/or webbing sometimes encountered during hot air leveling. HAL-40 is COMPLETELY water soluble, low foaming, free rinsing, and contains no glycol ethers, solvents, or activators which could attack solder mask or the laminate “buttercoat”.

#### Performance Features

- ENVIRO/Flow HAL-40 removes copper oxides and deposits a non-evaporative film over the copper resulting in a stable, clean solderable copper surface.
- ENVIRO/Flow HAL-40 reduces the surface tension at the copper/solder interface resulting in excellent solder coverage and appearance free of solder tailings or solder webbing.
- ENVIRO/Flow HAL-40 is completely water soluble and free rinsing.
- ENVIRO/Flow HAL-40 is a low acid formulation minimizing equipment wear.
- ENVIRO/Flow HAL-40 does not contain glycol ethers or activators which could attack soldermask or laminate.

#### Physical Specifications

Physical State	Liquid
Appearance	Transparent - Light Amber Solution
Odor	Slight
Freeze/Thaw Stability	Protect From Freezing
Specific Gravity	1.1
Flash Point	>600°F
pH (Neat)	< 3

#### Equipment Requirements

ENVIRO/Flow HAL-40 is compatible with all types of plastic, elastomers, and stainless steel employed by standard fluxing equipment. HAL-40 is not compatible with mild steel or aluminum.

## Technical Data Sheet

### Product Make-Up

ENVIRO/Flow HAL-40 should be used as received. DO NOT DILUTE WITH WATER OR ALCOHOL.

### Operating Parameters

ENVIRO/Flow HAL-40 can be applied with a standard flux applicator. It is not necessary to heat ENVIRO/Flow prior to use.

### Replenishment

The solution level should be maintained by adding fresh HAL-40 solution. The addition of water and/or isopropyl alcohol is not recommended.

### Safety and Handling

Refer to MSDS for further information.

### 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/Flow HAL-40 is available in 5 gallon pails and 55 gallon drums.

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