

ENVIRO/Flow HAL-31

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

Product Description

ENVIRO/Flow HAL-31 (HAL-31) is a high viscosity hot air solder leveling flux designed to assure rapid and complete soldering of printed wiring boards processed through vertical hot air leveling equipment such as Avalon®, Penta®, and Quicksilver®. HAL-31 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-31 will reduce solder adhesion to the laminate and/or soldermask, minimizing solder tailings and/or webbing sometimes encountered during hot air leveling. HAL-31 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-31 removes copper oxides and deposits a non-evaporative film over the copper resulting in a stable, clean solderable copper surface.
- ENVIRO/Flow HAL-31 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-31 is completely water soluble and free rinsing.
- ENVIRO/Flow HAL-31 is a low acid formulation minimizing equipment wear.
- ENVIRO/Flow HAL-31 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)	< 2.5

Equipment Requirements

ENVIRO/Flow HAL-31 is compatible with all types of plastic, elastomers, and stainless steel employed by standard fluxing equipment. HAL-31 is not compatible with mild steel or aluminum.

Technical Data Sheet

Product Make-Up

ENVIRO/Flow HAL-31 should be used as received. DO NOT DILUTE WITH WATER OR ALCOHOL.

Operating Parameters

ENVIRO/Flow HAL-31 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-31 solution. The addition of water and/or isopropyl alcohol is not recommended.

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

ENVIRO/Flow HAL-31 is available in 5 gallon pails and 55 gallon drums.

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