



Product Name: E-Qual Friendly VOC Free No Clean Wave Soldering Flux

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## Description

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E-Qual Friendly is a low solids, VOC Free, no clean flux, free from halide and colophony. It offers the highest activity of any VOC Free flux and offers Bellcore complaint-defect free soldering.

E-Qual Friendly is designed using a complex blend of organic activators and additives, which offer excellent wetting and top-side hole fill, even on OSP coated bare boards, which have undergone prior thermal reflow. The additives act to reduce the surface tension between the solder mask and the solder, thereby dramatically reducing the tendency of solder balling and solder bridging.

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## Features & Benefits

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- VOC Free to help meet air quality regulations.
- Bellcore compliant
- Excellent wetting for hole-fill even organically coated bare copper boards, with prior reflows.
- Suitable for use on lead free alloys such as **Nihon Superior Sn100C** , Sn99.3Cu0.7 (99C) and Sn96.5Ag3.5 (96S).
- Reduces the surface tension between the solder mask and solder to provide low solderball frequency.
- Low, non tacky residue – reduces interference with pin testing and board cosmetics.

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## Physical Properties

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Appearance:	Clear, colourless liquid
Solids content:	4.0
Specific Gravity:	1.04 @25°C (77°F)
Acid Number:	38.0 2.0 (mg KOH/g)
Flash Point:	None
PH:	2.35
Thinners:	DI Water
Shelf Life:	18 months
IPC J-STD-004:	ORLO

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## Application & Maintenance

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### Preparation

In order to maintain consistent soldering performance and electrical reliability, it is important to begin the process with circuit boards and components that meet established requirements for solderability and ionic cleanliness. We recommend that assemblers establish specifications on these items with their suppliers and that these suppliers provide Certificates of Analysis with shipments and assemblers perform incoming inspection. A common specification for ionic cleanliness of incoming boards and components is 5g/in<sup>2</sup> maximum, as measured by an Omegameter with heated insulation.

Care should be taken in handling the circuit boards throughout the process. Boards should always be held at the edges. The use of a clean, lint free glove is also recommended.

**Flux Application** E-Qual Friendly, is formulated to be applied by spray method. When spray fluxing the uniformity of the coating can be visually checked by running a piece of cardboard over the spray fluxer or by processing a board sized piece of tempered glass through the spray and then through the pre-heat section.

**Thinners** DKL Metals recommend de-ionised water for spray system purging or cleaning requirements.

**Packaging** E-Qual Friendly is supplied in 5 and 25 litre containers

