

## Product Data Sheet

# Flux Pens

### Products Available

- **FP-300** Water-soluble
- **FP-500** Rosin-containing, no-clean
- **NC-771** Rosin-free, no-clean
- **FP-2212** MIL-standard RMA
- **FP-1095NF** Neutral pH, water-soluble



### Introduction

Indium Corporation now offers a full line of flux pens in standard industry packaging. The technologically advanced pen has exceptional leak control and dispensing capability. Each pen contains 10ml of one of Indium Corporation's state-of-the-art fluxes designed for printed circuit board or other electronic/electrical assemblies.

### Features

- Compatible with both tin-lead and lead-free soldering processes
- Have a shelf life of 2 years from the date of manufacture when unopened and stored at 72 °F.
- Ship as "non-hazardous" by land due to the small quantity exemption

### FP-300

**FP-300** is an alcohol-based, water-soluble flux available in a pen and is designed for touch-up of printed circuit boards. **FP-300** cleans easily with warm DI water. For best residue removal results, clean as soon as soldering is complete.

### Physical Properties

Test	Result
Classification J-STD-004	ORMO
Flux Color	Amber
Viscosity	11 cs
Specific Gravity @ 25°C	0.905
Acid Value	42
Boiling Point	83°C
Flash Point	11°C
Residue Removal	Warm DI Water

### Packaging and Shipping

- Each flux pen contains 10 ml of flux
- Flux pens are packaged 20 per box with a plastic (bag) liner
- Due to the low quantity exemption, flux pens can be shipped as non-hazardous by land
- Air shipment of flux pens are considered AITA hazardous and incur additional charges for special packaging and freight terms

### FP-500

**FP-500** is a no-clean, rosin-containing, alcohol-based flux in an applicator pen, designed for touch-up and repair of electronic assemblies. By adding a small amount of rosin to the flux, the residue blends in better with the surface of the circuit board, eliminating the chance of any visible white residue.

- Rosin-containing for additional heat stability
- No visible residue with or without cleaning
- Halogen-free

### Physical Properties

Test	Result
Classification J-STD-004	ROLO
Specific Gravity @ 25°C	0.812
Acid Value	29.5
Solids Content	11.4
Flash Point (TCC)	54°C
SIR (Bellcore)	Pass

For specific SIR data, please see the FP-500 individual product data sheet.

**OVER→**

Form No. 98917 RO

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### NC-771

**NC-771** is an alcohol-based, rosin-free, no-clean flux in an applicator pen.

- Passes J-STD-004A SIR in the un-reflowed state
- Halogen-free
- Benign non-sticky post-soldering residue
- Excellent wetting
- Wide process window
- Clear appearance
- Flashpoint (TCC) 12 °F

### J-STD-004A Testing

Test	Result
Classification	ORLO
SIR	Pass
Copper Mirror	Pass "L"
Silver Chromate	Pass
Fluoride Spot	Pass
Corrosion	Pass
Acid Value	35 mg KOH/gm
Specific Gravity @ 25°C	0.825
Flux Solids	5.00%

### FP-1095NF

**FP-1095NF** is a neutral pH, alcohol-based, water-soluble flux available in a pen for rework of electronic assemblies. The benefit of a neutral pH flux is that the residues may be left on the assembly for extended periods before removal, without concern for generating corrosion products.

- Low solids
- High activity level
- Cleans to low ionic levels
- Cleaning can be delayed up to 48 hours

### Physical Properties

Test	Result
Classification	ORH1
Color	Clear to Light Yellow
Specific Gravity @ 25°C	0.783
Solids Content	19.50%
Flash Point	54°F

### FP-2212

Indium Corporation's **FP-2212** is a standard alcohol-based MIL-standard (per legacy QQ-S-571F) "RMA" flux in a convenient applicator pen. The greater percentage of flux rosin solids found in MIL-type fluxes provides additional heat stability and ease of use when compared to no-clean fluxes. However, slightly more post-soldering residue will be apparent.

- High solids, rosin-containing, no-clean flux
- Very heat stable
- Compatible with large and thick circuit board assembly
- Leaves almost no visible residue

### Physical Properties

Test	Result
Classification	ROL1
Solids Content	25%
Color	Amber
Acid Value	38 mg KOH/gm
Specific Gravity @ 25°C	0.859
Flash Point (TCC)	54°C
Copper Mirror	Pass
Silver Chromate	Pass
Fluoride Spot	Pass
IPC TM650 Corrosion	Pass
J-STD-004A SIR	Pass

*Additional data available on the WF-2212 data sheet.*

### Technical and Customer Support

Indium Corporation's internationally experienced engineers provide in-depth technical assistance to our customers. Thoroughly knowledgeable in all facets of Material Science as it applies to the electronics and semiconductor sectors, Technical Support Engineers provide expert advice in solder properties, alloy compatibility, and selection of solder preforms, wire ribbon, and paste. Indium Corporation's Technical Support Engineers provide rapid response to all technical inquiries.

### Safety Data Sheets

The SDSs for these products can be found online at <http://www.indium.com/sds>

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