



## **Excellent Integrated System Limited**

Stocking Distributor

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[4140-P](#)

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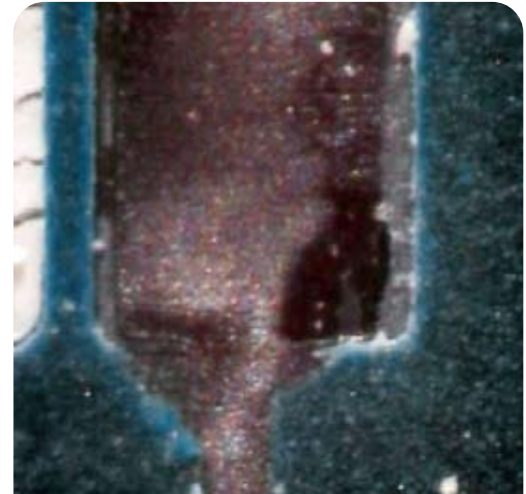
[sales@integrated-circuit.com](mailto:sales@integrated-circuit.com)

## What is the white residue on my board after using the flux remover?

A. The residue is dissolved flux that has not been washed off the board. Cleaning flux off a circuit board is more involved than simply spraying a cleaner onto it.

### IMPORTANT

Removing flux is a two-step process. The first step is dissolving the flux. The second step is rinsing off the dissolved flux. The rinsing step is very important because after dissolving the flux it may appear that the solids in the flux have disappeared, but once the flux remover has evaporated away, the solids will re-deposit on the board as white residue.



Close up: Chalky, white flux residue on board

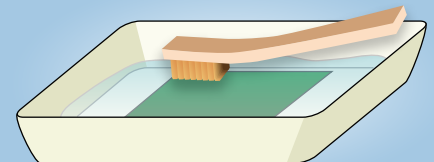
## Step 1: Dissolving the Flux

If you are using flux remover in aerosol form, spray a little flux remover onto the flux, then agitate with a hog hair cleaning brush. If you are using our 4140 Flux Remover, you may spray it liberally, as it is safe on your components. If you are using 413B Heavy Duty Flux remover, you may spray it liberally on the solder side of the board, but be careful to only apply it directly to the flux contaminated area if you are using it on the component side of the board, as it will harm some components. The 4140 is plastic safe so it may be applied liberally. Have a can of 413B handy in case you run into a patch of burnt-on difficult to remove flux.

If you are using flux remover in liquid form, pour the flux remover into a tray. If you are using 4140 Flux Remover, you may then submerge the PC board into the tray, agitating the flux with a hog-hair brush. If you are using 413B Heavy Duty Flux Remover, you should not submerge the board into the tray, as the components will be damaged. Instead, wet the hog-hair brush you are using by dipping it into the tray, and then use it to agitate the flux on the board. Periodically rinse and re-wet the brush by swishing it in the flux remover.



If you are using flux remover in liquid form, pour the flux remover into a tray.



Plastic Safe Only  
 Cat. No. 4140

All M.G. Chemicals flux removers are RoHS Compliant

E-mail salesusa@mgchemicals.com  
 Phone 1-800-201-8822 Ext. 130  
 1-604-888-3084 Ext. 130  
 Fax 1-800-708-9888  
 1-604-888-7754



ISO 9001:2000 Registered Quality System. QMI Certificate #004008 Toronto, Canada.

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# MG Chemicals AppGuide



## Step 2: Rinsing the Board

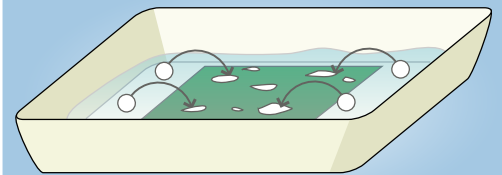
You must ensure that you rinse off the dissolved solids completely before the flux remover evaporates and the solids re-deposit. If you are using flux remover in aerosol form, the easiest way to do this is to hold the board vertically and liberally apply more flux remover until you see the flux remover running off of the board. If you have dissolved the flux by submerging the board in liquid flux remover, just dip the board into the tray and swish the flux remover and you should be ok.

If you have been using the particular tray to dissolve flux on a number of boards, dissolved flux may accumulate in the tray and dipping the board may actually deposit flux solids onto the board. In this case you will want to either set up a separate tray for rinsing, or have an aerosol can handy for rinsing. A particularly good option for rinsing dissolved flux off of a board is to use our 406B Super Wash. Super Wash comes in a large aerosol can, allowing for liberal use, and it dries very rapidly. Super Wash will rinse off un-evaporated flux remover as well as flux solids, and almost immediately after rinsing your board, it will be dry and ready for service.



Aerosol cleaning method with 4140-400G Plastic Safe Flux Remover or 413B-425G Heavy Duty Flux Remover

**When rinsing many boards, dissolved flux may accumulate in the tray and dipping the board may actually deposit flux solids onto the board.**



Tray method with liquid flux remover

## Products Discussed

Stock Code	Product Name	Size	Form
4140-400G	Plastic Safe Flux Remover	14 oz (400 grams)	Aerosol
4140-500ML	Plastic Safe Flux Remover	17 oz (500 ml)	Liquid
4140-1L	Plastic Safe Flux Remover	33 oz (1 liter)	Liquid
413B-425G	Heavy Duty Flux Remover	15 oz (425 grams)	Aerosol
413B-1L	Heavy Dusty Flux Remover	33 oz (1 liter)	Liquid
406B-450G	Super Wash Cleaner / Degreaser	16 oz (450 grams)	Aerosol
852	Hog Hair Cleaning Brush	7¾" in length	Brush

Larger sizes available for liquid forms.



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 Fax 1-800-708-9888  
 1-604-888-7754



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