

# CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2001  
 DateRun: 05/29/2001  
 Experimenters: Jason Marshall  
 ClientType: Electronics Manufacturer  
 ProjectNumber: Project #1  
 Substrates: Alloys, Aluminum  
 PartType: Part  
 Contaminants: Fluxes, Dirt  
 Cleaning Methods: Immersion/Soak  
 Analytical Methods: Visual, microscopic

Purpose: To evaluate selected cleaners for the removal of contaminants from the pin holes.

Experimental Procedure: Four cleaning products were selected based on their effectiveness for removing flux. DI water was also evaluated.  
 A drop of full strength solution was placed on the seam of the part and observed under a microscope at 10x magnification. Observations were recorded. Any effective cleaner was then tested to determine what effect the solution would have on the black and white ink/paint.

Results: Two of the products selected showed signs of removing the contaminant from the pin holes along the seam of the aluminum part. With Beyond 2001 and Tower 270 Cleaner, a black "bubbling" effect was observed. Multi Klean 1568, Formula 815 GD and DI water did not produce a similar cleaning action.  
 The two effective cleaners both removed some of the black paint. Beyond 2001 rubbed off more of the paint than Tower 270. The Tower 270 removed about as much as DI water.

Summary:

<b>Substrates:</b>	Alloys, Aluminum				
<b>Contaminants:</b>	Fluxes, Dirt				
<b>Company Name:</b>	<b>Product Name:</b>	<b>Conc.:</b>	<b>Efficiency:</b>	<b>Effective:</b>	<b>Observations:</b>
Today & Beyond	Beyond 2001	100	0.00	<input checked="" type="checkbox"/>	
Heatbath Corporation	Multi-Kleen 1568	100	0.00	<input type="checkbox"/>	
Brulin Corporation	Formula 815 GD	100	0.00	<input type="checkbox"/>	
Water	Water	100	0.00	<input type="checkbox"/>	
Tower Products Inc	Tower 270 Cleaner Concentrate	100	0.00	<input checked="" type="checkbox"/>	

Conclusion: Of the two products that showed signs of cleaning the pin holes, Tower 270 Cleaner was selected to be tested in the next test because it removed the least amount of the black paint. The next experiment will use ultrasonic cleaning at 40 kHz for 5 minutes.