CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	2001
DateRun:	05/30/2001
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:

Substrates:	Alloys, Aluminum				
Contaminants:	Fluxes, Dirt				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Today & Beyond	Beyond 2001	100		☑	
Heatbath Corporation	Multi-Kleen 1568	100		☐	
Brulin Corporation	Formula 815 GD	100		☐	
Water	Water	100		☐	
Tower Products Inc	Tower 270 Cleaner Concentrate	100		☑	

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.