CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2003

DateRun: 09/18/2003

Experimenters: Jason Marshall

ClientType: Lab

ProjectNumber: Project #1

Substrates: Aluminum

PartType: Coupon

Contaminants: Fluxes

Cleaning Methods: Immersion/Soak

Analytical Methods: Gravimetric

Purpose: Laboratory evaluations of alternative cleaning products

Experimental Procedure: Basic cleaning performance testing was conducted using ASTM G122 as the bases for cleaning.

Five products were used at full strength, heated to 120 F on a hot plate. Fifteen preweighed coupons were coated with Alpha 615 RMA flux (67-63-0, 8052-41-3, 8050-09-7) and allowed to dry for two hours and reweighed. Three coupons were cleaned in each solution for 5 minutes using stir-bar-agitation, rinsed in a tap water bath for 15 seconds at 120 F and dried using air blow off for 30 seconds at 68 F. Coupons were allowed to dry overnight and then reweighed a final time. Efficiencies were calculated.

Note: Bio T Foam Plus was sprayed onto coupons at room temperature and allowed to sit for 5 minutes. The cleaner was then rinsed.

Results: Only one product removed over 85% of this flux from the coupons. Two others removed just under 85%. The remaining two removed under 80%. Visual inspection revealed that most of the flux was removed, and the final weights could be improved with better rinsing and or drying in order to remove cleaning residue films.

Summary:

Substrates:	Aluminum				
Contaminants:	Fluxes				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
AW Chesterton	278 Super Solv	100	78.73	☐	
Bio Chem Systems	Bio T Foam Plus	100	84.21	☐	
Invista S.a.r.l	Flexisolv DBE Ester	100	88.40	☑	
Invista S.a.r.l	Flexisolv DBE 3 ester	100	83.14	☐	
Gemtek Products	SC EZ Solv Safety Solvent	100	65.05	☐	

Conclusion: The DuPont DBE was the only effective product.