CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2002

DateRun: 08/25/2002

Experimenters: Jason Marshall

ClientType: Chemical Company

ProjectNumber: Project #1

Substrates: Aluminum

PartType: Coupon

Contaminants: Coatings, Resins/Rosins, Solvent

Cleaning Methods: Ultrasonics

Analytical Methods: Gravimetric

Purpose: To evaluate past successful cleaners on new contaminant

Experimental Procedure: The four successful products from the previous trial were again used at full strength and room temperature. An additional product was added to the trial for comparative purposes. All five products were used in 600 ml beakers and degassed for 5 minutes in a Crest 40 kHz ultrasonic tank. Fifteen preweighed coupons were coated with Emerson & Cuming Eccocoat CC 40A Solvent based conductive coating (7440-22-4, 108-88-3, thermoplastic resin) using a hand held swab. Coupons were allowed to sit for 20 minutes and then weighed again. Three coupons were cleaned in each beaker for 5 minutes using ultrasonics. Coupons were rinsed for 15 seconds in a tap water bath at 68 F and dried for 2 minutes using air knives also at 68 F. Once dried, final weights were recorded and efficiencies calculated for each cleaner.

Results: Only two products, both Bio Chem Systems products, removed the contaminant from the coupons. The table lists the efficiencies for each coupon cleaned.

Table 1. Efficiencies

Cleaner	Initial wt	Final wt	% Removed
Bio T Max	0.7841	0.0024	99.69
	0.4790	0.0011	99.77
	1.1946	0.0022	99.82
DS 108	0.5712	0.5412	5.25
	1.4127	1.3377	5.31
	1.2168	1.1482	5.64
Solsafe 245	1.1079	0.2986	73.05
	0.9153	0.0279	96.95
	1.0718	0.4154	61.24
Ionox HC 2	0.9056	0.8900	1.72
	0.8696	0.8589	1.23
	0.6043	0.5981	1.03
Metabolix	1.0480	1.0011	4.48
	0.7915	0.7707	2.63
	1.2215	1.1370	6.92

Summary:

Substrates:	Aluminum				
Contaminants:	Coatings, Resins/Rosins, Solvent				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Bio Chem Systems	Bio T Max	100	99.76	☑	
Dysol	DS 108 Wipe Solvent	100	5.40	☐	
Bio Chem Systems	Solsafe 245	100	77.08	☐	
Kyzen Corporation	Ionox HC 2	100	1.33	☐	
Metabolix Inc	Metabolix E3HB	100	4.67	☐	

Conclusion: The four original effective cleaners will be used to clean the remaining contaminant.