CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2004

DateRun: 04/29/2004

Experimenters: Jason Marshall

ClientType: Capacitor Manufacturer

ProjectNumber: Project #1

Substrates: Aluminum

PartType: Coupon

Contaminants: Oil

Cleaning Methods: Immersion/Soak

Analytical Methods: Gravimetric

Purpose: To evaluate five new products on the first supplied soil.

Experimental Procedure: Five products were selected based on client request for vapor degreasing solvents. Each product was used at full strength in a 250 ml beaker and heated to 96 F on a hot plate. Fifteen preweighed aluminum coupons were coated with the Soltex Polybutene 32 (9003-29-6) using a hand held swab. Coupons were weighed a second time to determine the amount of soil added to each coupon. Three coupons were cleaned in each solution for 5 minutes using stir-bar agitation. After cleaning parts were weighed a final time and efficiencies were calculated.

Results: All five products removed over 90% of the contaminant within five minutes. The table lists the amount of soil added, the amount remaining and the efficiency for each coupon cleaned.

Cleaner	Initial wt	Final wt	% Removed
Ensolv	0.6136	0.0022	99.64
	0.4494	0.0015	99.67
	0.7979	0.0010	99.87
Ensolv A	0.3651	0.0012	99.67
	0.9078	0.0012	99.87
	0.6264	0.0007	99.89
Metalnox M6960	0.4272	-0.0001	100.02
	0.5370	0.0010	99.81
	0.4079	0.0277	93.21
Flux Remover	0.5576	0.0002	99.96
	0.3500	0.0000	100.00
	0.6874	0.0068	99.01
Heavy Duty Degreaser C	0.6942	0.0388	94.41
	0.3433	0.0555	83.83
	0.5158	0.0378	92.67

Summary:

Substrates:	Aluminum
Contaminants:	Oil

Company Name:	Product Name:	Conc.:	Efficiency:	Effective:	Observations:
Enviro Tech International Inc	Ensolv	100	99.73	☑	
Enviro Tech International Inc	Ensolv A	100	99.81	☑	
Kyzen Corporation	Metalnox M6960	100	97.68	☑	
Micro Care	Flux Remover C	100	99.66	☑	
Micro Care	Heavy Duty Degreaser C	100	90.31	☑	Resoiling upon drag out

Conclusion: All five will be tested on the second soil.