

# CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2008  
 DateRun: 04/10/2008  
 Experimenters: Ephraim Massawe  
 ClientType: Lab  
 ProjectNumber: Project #1  
 Substrates: Aluminum  
 PartType: Coupon  
 Contaminants: Alcohol  
 Cleaning Methods: Immersion/Soak  
 Analytical Methods: Gravimetric

Purpose: removing glycerol off the surfaces of aluminum using non-toxic cleaning products

Experimental Procedure: Basic cleaning performance testing was conducted using ASTM G122 as the bases for cleaning. Products were based on the compatibility of substrate and removal of foreign substance. Used 5% concentration and heated the samples at 135F. The coupons were immersed in a product for 5 minutes, rinsed for 30 seconds in tap water at 120F and dried in 30 seconds.

Cleaner	Initial wt	Final wt	% Removed
aquavantage 1400 GD			
	1.2310	0.0017	99.86
	0.9414	0.0201	97.86
	0.5861	0.0046	99.21
amberclean L12			
	0.7922	0.0041	99.48
	1.2298	0.0060	99.51
	1.3167	0.0028	99.79
seawash blue			
	1.3125	0.0029	99.78
	0.9267	0.0040	99.57
	1.1097	0.0016	99.86
sc aircraft and metal cleaner			
	1.4087	0.0151	98.93
	1.6787	0.0356	97.88
	1.1869	0.0151	98.73
NAB 9000			
	1.2635	0.0183	98.55
	1.2276	0.0161	98.69
	0.9019	0.0110	98.78
resineater			
	0.8945	0.0365	95.92
	1.4951	0.0274	98.17
	1.2165	0.0322	97.35

Summary:	<b>Substrates:</b> Aluminum					
	<b>Contaminants:</b> Alcohol					
	<b>Company Name:</b>	<b>Product Name:</b>	<b>Conc.:</b>	<b>Efficiency:</b>	<b>Effective:</b>	<b>Observations:</b>
	Warren Chemical Company	Sea Wash Blue	5	99.73	<input checked="" type="checkbox"/>	
	Gemtek Products	SC Aircraft & Metal Cleaner Super Concentrate	5	98.51	<input checked="" type="checkbox"/>	
	North Atlantic Bio Industries	NAB 9000	5	98.67	<input checked="" type="checkbox"/>	

# CLEANING LABORATORY EVALUATION SUMMARY

Finger Lakes Chemical	FLSC-12 Resineater Sample	5	97.15	<input checked="" type="checkbox"/>	
--------------------------	---------------------------	---	-------	-------------------------------------	--

Conclusion: All products passed the passing rate of percentage of contaminant removal of 85% or better.