

# CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2008  
 DateRun: 04/04/2008  
 Experimenters: Shweta Bansal  
 ClientType: Lab  
 ProjectNumber: Project #1  
 Substrates: Aluminum  
 PartType: Coupon  
 Contaminants: Greases  
 Cleaning Methods: Immersion/Soak  
 Analytical Methods: Gravimetric

Purpose: removing grease off of aluminum surfaces 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 using compressed air is room temperature. Coupons were coated with used oil. Using a handheld swab and allowed to dry for 144 hours at room temperature. The contaminated coupons were weighed again to determine the amount of soil added. After cleaning process, the final weights were recorded, efficiencies were calculated and recorded.

## Results:

Cleaner	Initial wt	Final wt	% Removed
resineater			
	1.4015	0.7503	46.46
	0.8815	0.5791	34.31
	1.4462	0.7192	50.27
amberclean L12			
	0.7530	0.4965	34.06
	0.9684	0.6494	32.94
	0.7440	0.5477	26.38
aquavantage 1400 GD			
	0.8336	0.8568	-2.78
	0.8924	0.8041	9.89
	0.8197	0.6754	17.60
sea wash blue			
	0.8731	0.5773	33.88
	0.7096	0.5603	21.04
	1.3015	0.9592	26.30
sc aircraft and metal cleaner			
	0.7069	0.6339	10.33
	1.0174	0.9033	11.21
	1.2859	1.1602	9.78
nab 9000			
	0.8268	0.6165	25.44
	1.1790	1.0984	6.84
	1.4364	1.2678	11.74

## Summary:

<b>Substrates:</b>	Aluminum				
<b>Contaminants:</b>	Greases				
<b>Company Name:</b>	<b>Product Name:</b>	<b>Conc.:</b>	<b>Efficiency:</b>	<b>Effective:</b>	<b>Observations:</b>
Finger Lakes Chemical	FLSC-12 Resineater Sample	5	43.68	<input type="checkbox"/>	
Innovative Organics Inc	Amberclean L 12	5	31.13	<input type="checkbox"/>	

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Brulin Corporation	Aquavantage 1400	5	8.24	<input type="checkbox"/>	
Warren Chemical Company	Sea Wash Blue	5	27.07	<input type="checkbox"/>	
Gemtek Products	SC Aircraft & Metal Cleaner Super Concentrate	5	10.44	<input type="checkbox"/>	
North Atlantic Bio Industries	NAB 9000	5	14.67	<input type="checkbox"/>	

Conclusion: None of the products that has tested passed the removal rate of 85%.