CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	2008
DateRun:	06/04/2008
Experimenters:	Shweta Bansal
ClientType:	Lab
ProjectNumber:	Project #1
Substrates:	Aluminum
PartType:	Coupon
Contaminants:	Oil
Cleaning Methods:	Immersion/Soak
Analytical Methods:	Gravimetric
Purpose:	To remove lard oil from aluminum using immersion cleaning
Experimental Procedure:	Basic cleaning performance testing was conducted using ASTM G122 as the bases for cleaning. Products were selected based on the compatibility of substrate and for removal of the contaminant. Five percent concentrations were used and heated the samples at 130F. The coupons were immersed in a product for 5 minutes, but not rinsed or dried. Coupons were coated with used lard 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
Ozzy Juice SW1			
	0.3040	0.0021	99.31
	0.4217	0.0031	99.26
	0.4578	0.0004	99.91
Sea Wash Blue			
	0.4341	0.0002	99.95
	0.2047	0.0003	99.85
	0.2558	0.0020	99.22
Valtron SP 2275			
	0.4002	0.0028	99.30
	0.2740	0.0009	99.67
	0.5102	0.0038	99.26
NAB 9000			
	0.3765	0.0202	94.63
	0.4813	0.0192	96.01
	0.3689	0.0157	95.74
California Parts Washer			
	0.4030	0.0097	97.59
	0.3824	0.0019	99.50
	0.4212	0.0077	98.17
Ozzy Juice SW3			
	0.3289	0.0140	95.74
	0.2004	0.0142	92.91
	0.3278	0.0283	91.37

Summary:

Substrates:	Aluminum				
Contaminants:	Oil				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Chem Free Corporation	SW-1 Ozzy Juice	5	99.50	☑	
Warren Chemical Company	Sea Wash Blue	5	99.68	☑	
Valtech Corporation	Valtron SP 2275	5	99.41	☑	

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North Atlantic Bio Industries	NAB 9000	5	95.46	☑	
Phase III Inc	California Parts Washer Solution	5	98.42	☑	
Chem Free Corporation	SW-3 Ozzy Juice (Improved Low Odor)	5	93.34	☑	

Conclusion: All six products removed over 90% of the lard oil using immersion cleaning for five minutes.