CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2008

DateRun: 08/03/2008

Experimenters: Jason Marshall, Shweta Bansal

ClientType: Machine Construction Company

ProjectNumber: Project #2

Substrates: Steel

PartType: Coupon

Contaminants: Coatings

Cleaning Methods: Immersion/Soak

Analytical Methods: Gravimetric

Purpose: To reevaluate selected products on the first supplied rust preventative using higher concentrations

Experimental Procedure: Five products from the previous trial were selected based on past testing results. The products were diluted to 20% using DI water in 600 ml beakers.

Fifteen preweighed steel coupons were coated with rust preventative VCI 325 using a hand held swab. Dirty weights were recorded. Three coupons were cleaned in each product for five minutes using minimal agitation. No rinse was used and coupons were air dried at room temperature. Once dry, final weights were recorded and efficiencies calculated.

Results: Only one product, SC Aircraft, showed improvement with the increase of concentration. For Aeromaster, there was a drastic drop off in efficiency due to the viscosity of the cleaning product. Without a rinse and at the higher concentration, more of the cleaning product remained on the coupon after cleaning, thus lowering the efficiency. The table lists the amount of soil added, the amount remaining and the efficiency for each coupon cleaned.

Cleaner	Initial wt	Final wt	% Removed
Beyond 2004			
	0.0604	0.0535	11.42
	0.1197	0.0636	46.87
	0.1308	0.0650	50.31
SC Aircraft & Metal cleaner			
	0.2012	0.0717	64.36
	0.3285	0.0790	75.95
	0.2501	0.0944	62.26
Aquavantage 1400			
	0.1894	0.0556	70.64
	0.1649	0.0588	64.34
	0.1371	0.0810	40.92
Ozzy Juice SW 1			
	0.1984	0.0982	50.50
	0.1283	0.0736	42.63
	0.1599	0.1001	37.40
Aeromaster			
	0.1634	0.1174	28.15
	0.1923	0.1185	38.38
	0.1101	0.1512	-37.33

Summary:

Substrates:	Steel				
Contaminants:	Coatings				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Today & Beyond	Beyond 2004	20	36.20	☐	
Gemtek Products	SC Aircraft & Metal Cleaner Super Concentrate	20	67.52	☑	
Brulin Corporation	Aquavantage 1400	20	58.64	☐	
	SW-1 Ozzy Juice	20	43.51		

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Chem Free Corporation				☐	
Buckeye International	Aeromaster	20	9.73	☐	

Conclusion: Testing will continue on the second supplied rust preventative with products at the lower concentration except for SC Aircraft. Additional non-aqueous products will be tested.