CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2008

DateRun: 10/16/2008

Experimenters: Jason Marshall

ClientType: Machine Construction Company

ProjectNumber: Project #2

Substrates: Steel

PartType: Coupon

Contaminants: Coatings

Cleaning Methods: Immersion/Soak

Analytical Methods: Gravimetric

Purpose: To evaluate top cleaning products without rinsing.

Experimental Procedure: The top two products were selected from the previous trials based on success on removing tithe supplied soils using heated immersion cleaning. Both were used at full strength based on vendor recommendations. Beakers were heated to 130 F on a hot plate. Preweighed steel coupons were coated with the three supplied soils, VCI 369, VCI 368 and VCI 325, using a hand held swab. Coupons were weighed again to determine the amount of soil added. Three coupons were cleaned in each solution for 10 minutes using stir bar agitation. Coupons were not rinsed but were dried using compressed air at room temperature for 30 seconds. Final weights were recorded and efficiencies calculated.

Results: Both products were able to remove over 85% of the three soils using immersion cleaning without rinsing. The Bean-e-doo removed over 92%. The table lists the amount of soil added, the amount remaining and the efficiency for each coupon cleaned.

Cleaner	Initial wt	Final wt	% Removed
Smart Solve 605 - VCI 639			
	0.2647	0.0107	95.96
	0.1136	0.0167	85.30
	0.2171	0.0239	88.99
Bean-e-doo - VCI 639			
	0.1711	0.0294	82.82
	0.2043	0.0062	96.97
	0.3304	0.0157	95.25
Smart Solve 605 - VCI 638			
	0.3001	0.0334	88.87
	0.2444	0.0210	91.41
	0.2038	0.0222	89.11
Bean-e-doo - VCI 638			
	0.2324	0.0186	92.00
	0.2690	0.0170	93.68
	0.3066	0.0094	96.93
Smart Solve 605 - VCI 325			
	0.1093	0.0239	78.13
	0.0749	0.0211	71.83
	0.1013	0.0186	81.64
Bean-e-doo - VCI 325			
	0.1266	0.0097	92.34
	0.1121	0.0101	90.99
	0.1542	0.0136	91.18

Summary:

Substrates:	Steel				
Contaminants:	Coatings				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
United Laboratories International	Smart Solve 605	100	85.69	☑	
Franmar Chemical	Bean-e-doo (Parts Washer Solvent)	100	92.46	☑	

Conclusion:

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Piloting of the two cleaning products should be arranged as the next step.