CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	2008
DateRun:	11/03/2008
Experimenters:	Jason Marshall
ClientType:	Cleaner Manufacturer
ProjectNumber:	Project #1
Substrates:	Ceramics, Plastic, Steel
PartType:	Coupon
Contaminants:	Hucker's Soil
Cleaning Methods:	Manual Wipe
Analytical Methods:	Gravimetric
Purpose:	To re-evaluate supplied product for all purpose cleaning at two dilutions.
Experimental Procedure:	The supplied cleaning product was used at two concentrations (1 oz per gallon and 4 oz/gallon) as requested. Preweighed ceramic, plastic and steel coupons were coated with Hucker's Soil Formulation (Jif Creamy Peanut Butter 9.2%, Salted Butter 9.2%, Arrowhead Mills stone ground wheat flour 9.2%, Egg Yolk 9.2%, Evaporated milk 13.8%, Distilled water 45.8%, Printer's ink with boiled linseed oil 0.9%, Shaws saline solution 2.7%) using a handheld swab and allowed to dry for 24 hours at room temperature. The contaminated coupons were weighed again to determine the amount of soil added. Three coupons were placed into a Gardner Straight Line Washability unit. AA Wypall X60 reinforced wipe was attached to the cleaning sled and soaked with 5-7 sprays of cleaning solutions. Each coupon was sprayed 7-10 times with the same cleaning solution. The solution was allowed to penetrate for 30 seconds followed by cleaning in the SLW unit for 20 cycles (~33 seconds). At the end of the cleaning, coupons were wiped once with a dry paper towel. Final weights were recorded, and efficiencies were calculated and recorded.
Results:	One of the two dilutions had an overall average efficiency greater than 85% and the other removed less than 80%. The removal of the soil from the ceramic surface was the most challenging for lower dilution. The table lists the amount of soil added and the amount remaining after cleaning and the product efficiency for each coupon cleaned.

Cleaner	Initial wt	Final wt	% Removed
Heavy duty 0.78 - Ceramic	0.3255	0.0509	84.36
	0.1088	0.0455	58.18
	0.1048	0.0460	56.11
Heavy duty 0.78 - Plastic	0.1103	0.0277	74.89
	0.0816	0.0090	88.97
	0.1190	0.0063	94.71
Heavy duty 0.78 - Steel	0.0663	0.0057	91.40
	0.0476	0.0109	77.10
	0.0482	0.0064	86.72
Heavy duty 3.125 - Ceramic	0.1390	0.0034	97.55
	0.0788	0.0112	85.79
	0.0681	0.0050	92.66
Heavy duty 3.125 - Plastic	0.0066	0.0006	90.91
	0.0378	0.0017	95.50
	0.0726	0.0056	92.29
Heavy duty 3.125 - Steel	0.0715	0.0040	94.41
	0.0340	0.0027	92.06
	0.0255	0.0039	84.71

Summary:

Substrates:	Ceramics, Plastic, Steel

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Contaminants:	Hucker's Soil				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Scout Systems	Scout Heavy Duty	0.78	79.16	☐	
Scout Systems	Scout Heavy Duty	3.125	91.76	☑	

Conclusion: One of the two dilutions had an overall average efficiency over 85% and would be considered effective based on the SSL testing methodology.