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 reevaluate supplied original product at a new dilution.

Experimental Procedure: The original supplied formulation was diluted to 8 oz per 5 gallons (1.25%) as requested.

Preweighed ceramic, plastic G-10 and painted 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. A Kimberly-Clark Wypal reinforced paper towel 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 cleaning unit was run for 20 cycles (~33 seconds). At the end of the cleaning, coupons were wiped once with a dry paper towel. Final weights were recorded, efficiencies were calculated and recorded.

Results: The diluted product was not effective in removing the Hucker's soil from the three substrates. The 1.25 dilution was only effective on one of the three substrates, plastic. The table lists the amount of soil added, the amount remaining and the calculated efficiency for each coupon cleaned.

Cleaner	Initial wt	Final wt	% Removed
Ceramic	0.0655	0.0387	40.92
	0.0479	0.0433	9.60
	0.0546	0.0500	8.42
Plastic	0.0510	0.0038	92.55
	0.0635	0.0000	100.00
	0.0480	0.0041	91.46
Painted Steel	0.0202	0.0046	77.23
	0.0294	0.0091	69.05
	0.0292	0.0038	86.99

Summary:

Substrates:	Ceramics, Plastic, Steel				
Contaminants:	Hucker's Soil				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Environmental Care and Share	Heavy Duty Cleaner Answer	1.25	64.02	☐	

Conclusion: The dilutions removed less than 85% of the Hucker's soil and would be considered ineffective based on the SSL testing methodology.