CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	2003
DateRun:	03/09/2003
Experimenters:	Jason Marshall, Heidi Wilcox
ClientType:	State Agency
ProjectNumber:	Project #2
Substrates:	Ceramics, Plastic, Steel
PartType:	Coupon
Contaminants:	Hucker's Soil
Cleaning Methods:	Manual Wipe
Analytical Methods:	Gravimetric, Photography
Purpose:	To evaluate third supplied cleaner on remaining soil and three substrates.

Experimental Procedure:

The supplied cleaning product was diluted with DI water to vendor recommended concentration for all purpose cleaning. Three preweighed ceramic, three plastic G-10 and three 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 hand held swab and allowed to dry for 24 hours at room temperature. The contaminated coupons were weighed again to determine the amount of soil added. Photographs were taken.

Three coupons were placed into a Gardner Straight Line Washability unit. A Professional Painter's Rag 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 and a second set of photographs were taken. Efficiencies were calculated and recorded.

Results:

The product was successful in removing the soil from the two of the three substrates. Then cleaner had difficulty in removing the soil from the plastic coupons. The table below lists the amount of soil applied and removed from the coupons.

Table 1. Soil Removal

Cleaner	Initial wt	Final wt	% Removed
Ceramic NGC	0.0129	0.0010	92.25
	0.0155	0.0011	92.90
	0.0188	0.0014	92.55
Plastic NGC	0.0297	0.0109	63.30
	0.0234	0.0090	61.54
	0.0191	0.0062	67.54
Steel NGC	0.0260	0.0008	96.92
	0.0327	-0.0002	100.61
	0.0272	0.0008	97.06

Summary:

Substrates:	Ceramics, Plastic, Steel				
Contaminants:	Hucker's Soil				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Next-Gen Supply Group	PC 101 Neutral and Glass Cleaner	1	92.57	☑	Ceramic
Next-Gen Supply Group	PC 101 Neutral and Glass Cleaner	1	64.13	☐	Plastic
Next-Gen Supply Group	PC 101 Neutral and Glass Cleaner	1	98.20	☑	Steel

Conclusion:

The overall efficiency for 101 Neutral & Glass Cleaner was 84.96, just falling short of the cut off of 85%. The two products from vendor were successful in removing two types of soils, soap scum for bathroom and glass from the various substrates. The final soil (Hucker's soil) was removed from ceramics and painted steel at a high rate. Increasing the concentration of the product on the plastic substrate may result in an increase in affiance.