CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2007

DateRun: 07/02/2007

Experimenters: Jason Marshall, Shweta Bansal, Andrea Cheeseman

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 evaluate supplied product for all purpose cleaning at two concentrations using manual cleaning.

Experimental Procedure: The supplied cleaning product was used at the delivered concentrations (0.78% and 0.39%). Six preweighed ceramic, six plastic and six 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: 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
1:128 Steel	0.0606	0.0050	91.75
	0.1925	0.0161	91.64
	0.0876	0.0131	85.05
1:256 Steel	0.1592	0.0313	80.34
	0.1934	0.0117	93.95
	0.0777	0.0055	92.92
1:128 Ceramic	0.9172	0.0576	93.72
	0.4495	0.0422	90.61
	0.3588	0.0232	93.53
1:256 Ceramic	0.7129	0.0470	93.41
	0.2151	0.0864	59.83
	0.3346	0.1555	53.53
1:128 Plastic	0.1701	0.0080	95.30
	0.0869	0.0034	96.09
	0.0830	0.0031	96.27
1:256 Plastic	0.1244	0.0098	92.12
	0.1208	0.0066	94.54
	0.1597	0.0270	83.09

Summary:

Substrates:	Ceramics, Plastic, Steel				
Contaminants:	Hucker's Soil				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Next-Gen Supply Group	PC 120 Peroxide Mulitsurface Cleaner	0.78	92.66	☑	
Next-Gen Supply Group	PC 120 Peroxide Mulitsurface Cleaner	0.39	82.64	☐	

Conclusion: The product at the higher dilution had an overall average efficiency over 85% and would be considered effective according to the Mass EPP protocol for an all-purpose cleaner.