CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2008

DateRun: 12/22/2008

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 product as compared to a conventional all purpose cleaning product following GS 37.

Experimental Procedure: The supplied cleaning product was used at the supplied concentration (25:1). A second product, selected by the lab, was used at full strength as recommended by the vendor for all purpose cleaning. Preweighed ceramic 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 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 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: Both the supplied product and industry product were effective in removing the Hucker's Soil with a manual wiping action. The table lists the amount of soil initially added and the amount remaining after cleaning and the product efficiency for each coupon cleaned.

Cleaner	Initial wt	Final wt	% Removed
Super H2O2 - ceramic	0.2529	0.0061	97.59
	0.1897	0.0093	95.10
	0.2924	0.0254	91.31
Super H2O2 - painted steel	0.2073	0.0176	91.51
	0.3476	0.0254	92.69
	0.2226	0.0042	98.11
Super H2O2 - plastic	0.1897	0.0014	99.26
	0.1385	0.0029	97.91
	0.1321	0.0029	97.80
Formula 409 AP - ceramic	0.2056	0.0265	87.11
	0.1933	0.0164	91.52
	0.1932	0.0227	88.25
Formula 409 AP - painted steel	0.3580	0.0104	97.09
	0.4966	0.0205	95.87
	0.2427	0.0282	88.38
Formula 409 AP - plastic	0.1026	0.0012	98.83
	0.1440	0.0135	90.63
	0.3173	0.0011	99.65

Summary:

Substrates:	Ceramics, Plastic, Steel
Contaminants:	Hucker's Soil

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Company Name:	Product Name:	Conc.:	Efficiency:	Effective:	Observations:
Cleanline Products	H2O2 Super Citrus Concentrate	4	95.70	☑	
Clorox Company	Formula 409 All Purpose Cleaner	100	93.04	☑	

Conclusion: The supplied product had an overall average efficiency greater than 85% and was as effective as the conventional all-purpose cleaner. Therefore, the product would be considered effective based on the SSL testing methodology and the GS 37 standard.