CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2008

DateRun: 11/24/2008

Experimenters: Jason Marshall, Junhee Cho

ClientType: Cleaner Manufacturer

ProjectNumber: Project #1

Substrates: Ceramics, Fiberglass, Chrome

PartType: Coupon

Contaminants: Films, Soaps

Cleaning Methods: Manual Wipe

Analytical Methods: Gravimetric

Purpose: To evaluate supplied product for GS 37 bathroom cleaning.

Experimental Procedure: The supplied cleaning product was used at the requested concentration and a second product, selected by the lab, was diluted with DI water to vendor recommended dilution for bathroom cleaning.

Preweighed chrome coupons were coated with SSL Soil 1 (Bathroom soap scum: All-in-one shampoo and conditioner 28.6%, Dry skin lotion 21.4%, Liquid hand soap 21.4%, Liquid body wash 14.3%, Deodorant bar soap 7.2% and water 7.1%.) 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. Efficiencies were calculated and recorded.

Results: The industry standard product was effective in removing the bathroom soil with a manual wiping action. The supplied product was effective on 2 of the three substrates. 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
H2O2-ceramic	0.2287	0.0590	74.20
	0.1961	0.0514	73.79
	0.2282	0.0425	81.38
H2O2-chrome	0.0950	0.0072	92.42
	0.2121	0.0331	84.39
	0.1404	0.0162	88.46
H2O2-fiberglass	0.0776	0.0068	91.24
	0.1270	0.0202	84.09
	0.2257	0.0444	80.33
Heavy Duty-ceramic	0.2088	0.0431	79.36
	0.1525	0.0402	73.64
	0.2057	0.0519	74.77
Heavy Duty-chrome	0.1548	0.0201	87.02
	0.1024	0.0152	85.16
	0.1142	0.0193	83.10
Heavy Duty-fiberglass	0.1695	0.0085	94.99
	0.1109	0.0064	94.23
	0.2153	0.0150	93.03

Summary:

Substrates:	Ceramics, Fiberglass, Chrome				
Contaminants:	Films, Soaps				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Cleanline Products	H2O2 Super Citrus Concentrate	4	83.37	☐	
		2	85.03		

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The Clean Environment Co	Natural N-14 Heavy Duty Degreaser and Cleaner			☑	

Conclusion: The supplied product did not have an overall average efficiency greater than 85% and would not be considered effective based on the SSL testing methodology.