CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2017

DateRun: 12/19/2017

Experimenters: Alicia McCarthy, Hayley Byra

ClientType: Cleaner Manufacturer

ProjectNumber: Project #1

Substrates: Ceramics, Plastic, Chrome

PartType: Coupon

Contaminants: Soaps

Cleaning Methods: Manual Wipe

Analytical Methods: Gravimetric

Purpose: To compare the effectiveness of removing Bathroom soil from a variety of surfaces using the supplied cleaning products.

Experimental Procedure: Eighteen preweighed coupons, three for each substrate, were soiled with 1g of Bathroom soil (28.6% All-in-one shampoo and conditioner, 21.4% dry skin lotion, 21.4% liquid hand soap, 14.3% liquid body wash, 7.2% deodorant bar soap, 7.1% water) using a swab. Coupons air dried at room temperature (68F) for 24 hours before recording dirty weights. A sponge, provided by EcoEgg, was used to manually clean with both the supplied and comparative product. The sponge was saturated once with deionized water before rubbing it into the EcoEgg hard surface cleaner in a circular motion for five seconds. Coupons were cleaned one at a time for 30 seconds in a circular motion with a reapplication of the cleaner between each coupon. A dime sized drop of the comparative product was applied directly to the coupons one at a time and cleaned with a wet sponge for 30 sections in a circular motion. The coupons were dried by wiping once with a microfiber towel before taking clean weights and final observations.

Results:

Cleaner	Coupon Type	Initial wt. of cont.	Final wt. of cont.	%Cont. Removed	Avg. Cont. Removed (%)	Overall Cont. Removed (%)
Hard Surface Cleaner	Ceramic	0.2158	0.0109	94.95	91.81	90.50
		0.2153	0.0069	96.80		
		0.2226	0.0363	83.69		
	Plastic	0.1974	-0.0055	102.79	93.27	
		0.2061	0.0277	86.56		
		0.1930	0.0184	90.47		
	Chrome	0.2130	0.0347	83.71	86.43	
		0.2161	0.0260	87.97		
		0.2202	0.0273	87.60		
Soft Scrub	Ceramic	0.2218	0.0043	98.06	97.09	98.41
		0.2159	0.0041	98.10		
		0.2209	0.0108	95.11		
	Plastic	0.2139	0.0003	99.86	99.67	
		0.2250	0.0017	99.24		
		0.2361	0.0002	99.92		
	Chrome	0.2213	0.0046	97.92	98.45	
		0.2213	0.0027	98.78		
		0.2386	0.0032	98.66		

Observations:

Both cleaners easily removed the soil. EcoEgg's product left behind some residue after drying, but it looks like it could be easily removed by wiping a wet sponge on the surface.

Summary:

Substrates:	Ceramics, Plastic, Chrome				
Contaminants:	Soaps				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Eco Egg	Hard Surface Cleaner Citrus	100	90.50	☑	
Dial Professional	Soft Scrub Lemon	100	98.41	☑	

Conclusion:

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EcoEgg’s Hard Surface Cleaner Citrus Burst is as effective as the comparison cleaning product at removing bathroom soil from ceramic, plastic, and chrome.