CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2019

DateRun: 09/24/2019

Experimenters: Aditi Patel, Rimsha Paneru

ClientType: Cleaning Equipment Mfr

ProjectNumber: Project #1

Substrates: Ceramics, Chrome

PartType: Coupon

Contaminants: Films, Soaps

Cleaning Methods: Manual Wipe

Analytical Methods: Gravimetric

Purpose: To evaluate the effectiveness of Shine bathroom spray and comparative products at the removal of bathroom soil on Ceramic, Plastic and Chrome coupons.

Experimental Procedure: Nine pre-weighed coupons, three of each substrate per cleaner, were soiled with 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, and 7.1% water) and aged for 24 hours at room temperature (68˚F). Dirty weights were recorded before placing three coupons of the same substrate onto the Straight Line Washability (SLW) unit. The cleaner wipe was attached to the SLW sled and cleaned for 20 cycles (equivalent of 30 seconds of manual cleaning). Coupons air dried at room temperature (68 F) overnight before final weights were recorded.

Results:

Cleaner	Substrate	Initial of cont. wt.	Final of cont. wt.	% Removal	Average	Overall Average
1	Plastic	0.0282	0.0027	90.43	86.87	90.28
		0.0446	0.0054	87.89		
		0.0429	0.0076	82.28		
	Ceramic	0.0702	0.0065	90.74	88.20	
		0.0614	0.0078	87.30		
		0.0781	0.0105	86.56		
	Chrome	0.0746	0.0030	95.98	95.77	
		0.0752	0.0039	94.81		
		0.0517	0.0018	96.52		
2	Plastic	0.0428	0.0074	82.71	89.22	84.59
		0.0962	0.0126	86.90		
		0.0613	0.0012	98.04		
	Ceramic	0.0849	0.0076	91.05	86.41	
		0.0721	0.0081	88.77		
		0.0802	0.0165	79.43		
	Chrome	0.0504	0.0059	88.29	78.13	
		0.0668	0.0066	90.12		
		0.0645	0.0284	55.97		
3	Plastic	0.0524	0.0067	87.21	92.97	91.58
		0.0426	0.0004	99.06		
		0.0489	0.0036	92.64		
	Ceramic	0.0613	0.0040	93.47	91.87	
		0.0667	0.0043	93.55		
		0.0464	0.0053	88.58		
	Chrome	0.0709	0.0066	90.69	89.90	
		0.0554	0.0054	90.25		
		0.0863	0.0097	88.76		

(1) Lysol, (2) Scrubber Bubbles, (3) Shine Bathroom Spray

Summary:

Substrates:	Ceramics, Chrome
Contaminants:	Films, Soaps

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Company Name:	Product Name:	Conc.:	Efficiency:	Effective:	Observations:
Reckitt Benckiser	Lysol Power Toilet Bowl Cleaner	100	90.28	☑	
SC Johnson & Son Inc	Scrubbing Bubbles	100	84.59	☑	
Shine Bathroom	Shine Bathroom system	100	91.58	☑	

Conclusion: Shine Cleaning Spray had the best overall effectiveness at the removal of bathroom soils from plastic, ceramic and chrome.