CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2019

DateRun: 10/01/2019

Experimenters: Ross Goding

ClientType: Cleaning Equipment Mfr

ProjectNumber: Project #1

Substrates: Ceramics, Plastic, Chrome

PartType: Coupon

Contaminants: Hucker's Soil

Cleaning Methods: Manual Wipe

Analytical Methods: Gravimetric

Purpose: To evaluate the effectiveness of Shine Toilet Bowl Cleaner and comparative product for removing Hucker's Soil on Plastic, Ceramic, and Chrome coupons.

Experimental Procedure: Nine pre-weighed coupons, three of each substrate per cleaner, were soiled with Hucker's Soil (Evaporated milk 26.5%, Creamy Peanut Butter 17%, Salted Butter 17%, Stone ground wheat flour 17%, Linseed oil 2.25%, Saline solution 5.25%, India Ink 6.8%, Lemon Juice 8.2%) and aged for 24 hours at room temperature (68˚F). Dirty weights 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: Plastic coupon number 51 and Ceramic coupon numbers 25 and 55 were not soiled with exactly 0.5 grams of Huckers soil which is why the averages are lower than normal compared to all other averages. Comparatively, Force of Natures cleaner removed more soil from the substrate than that of Shine Bathroom cleaner even if the proper amount of soil was given to Plastic coupon number 51 and Ceramic coupon numbers 25 and 55.

Cleaner	Substrate	Coupon #	Initial wt.	Final wt.	% Removal	Average	Overall Removal
1	Plastic	60	0.0853	0.0073	91.44	73.64	67.86
		23	0.1088	0.0066	93.93		
		51	0.0892	0.0575	35.54		
	Ceramic	25	0.3398	0.2467	27.40	48.62	
		55	0.3776	0.2358	37.55		
		79	0.3101	0.0592	80.91		
	Chrome	5	0.3423	0.0765	77.65	81.31	
		19	0.3372	0.0648	80.78		
		8	0.3409	0.0494	85.51		
2	Plastic	9	0.0712	0.0002	99.72	92.55	90.20
		4	0.0203	0.0012	94.09		
		17	0.013	0.0021	83.85		
	Ceramic	73	0.0265	0.0045	83.02	87.19	
		71	0.0444	0.0023	94.82		
		115	0.0332	0.0054	83.73		
	Chrome	28	0.0837	0.0066	92.11	90.87	
		50	0.051	0.0047	90.78		
		10	0.0603	0.0062	89.72		

Summary:

Substrates:	Ceramics, Plastic, Chrome				
Contaminants:	Hucker's Soil				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Shine Bathroom	Shine Bathroom system	100	67.86	☐	
Healthier Cleaning Innovations	Force of Nature	100	90.20	☑	

Conclusion: Force of Nature Cleaner was more effective at removing Huckers soil from Plastic, Ceramic, and Chrome then Shine Toilet Bowl Cleaner.