CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	2021
DateRun:	08/22/2021
Experimenters:	Nicole Kebler, Edward Judge
ClientType:	Cleaner Manufacturer
ProjectNumber:	Project #2
Substrates:	Ceramics, Plastic, Chrome
PartType:	Coupon
Contaminants:	Soaps
Cleaning Methods:	Manual Wipe
Analytical Methods:	Gravimetric, Visual
Purpose:	To evaluate the effectiveness of Amazon Aware Bathroom Cleaner in the removal of Bathroom Soil from ceramic, plastic, and chrome substrates.
Experimental Procedure:	An Amazon Aware Bathroom Cleaner solution was created by mixing 2 tablets in 16 fl oz of water and a Clorox Bathroom solution was gathered as a comparison. Then, 3 coupons of each substrate (ceramic, plastic, chrome) were collected, and initial weights were taken. Bathroom Soil was applied to each coupon and allowed to air dry for 24 hours. After the 24-hour dry time, the weights of the newly contaminated coupons were measured. All coupons were placed into a Gardner-scrub Abrasion Tester machine. Wypall cleaning cloths were attached to each of the 3 cleaning blocks used for the test. Each Wypall cloth and all coupons received 2 sprays of the Amazon Aware Bathroom Cleaner and Clorox Bathroom Cleaner solutions, and the Gardner-scrub Abrasion Tester was run for 20 repetitions, simulating 20 manual wipes. Once cleaning concluded, the cleaned coupons were allowed to air dry for 24 hours. After 24 hours, the weights of the cleaned coupons were measured. Cleaners: A: Amazon Aware Bathroom Cleaner B: Clorox Bathroom Cleaner Substrates: 1. Ceramic 2. Plastic 3. Chrome

Results:

Cleaner	Substrate	Initial wt of cont.	Final wt of cont.	%Cont Removed	%AVG Removal	% Removal Overall
A	1	0.2122	0.0408	80.77	75.94	79.66
		0.1658	0.0723	56.39		
		0.3041	0.0979	67.81		
	2	0.2643	0.0032	98.79	94.37	
		0.6340	0.0399	93.71		
		0.1545	0.0145	90.61		
	3	0.1777	0.0339	80.92	68.65	
		0.3910	0.2097	46.37		
		0.1688	0.0360	78.67		
B	1	0.1475	0.0385	73.90	67.33	72.29
		0.1392	0.0937	32.69		
		0.4073	0.1352	66.81		
	2	0.3023	0.0123	95.93	84.75	
		0.6786	0.0558	91.78		
		0.2018	0.0675	66.55		
	3	0.2236	0.0747	66.59	64.78	
		0.1294	0.0458	64.61		
		0.2485	0.0916	63.14		

Summary:

Amazon Aware Bathroom Cleaner performed better than Clorox for all three substrates. It had 76% removal on ceramic, 94% on plastic and 69% on chrome. Clorox bathroom cleaner had 67% removal on ceramic, 85% on plastic and 65% on chrome. Overall Amazon Aware had 80% removal and Clorox had 72%.

	Ceramics, Plastic, Chrome

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Substrates:					
Contaminants:	Soaps				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Sunstate Laboratory LLC	Sunstate Bathroom Tablet	2 Tablets in 16 fl oz	79.60	☑	Sunstate Bathroom Cleaning Tablet performed better than the comparative product and was effective for the removal of soil from substrates at 80%.
Clorox Company	Clorox Bleach	RTU	73.00	☐	Clorox Bathroom Cleaner was most effective on plastic substrate and had an overall effectiveness of 73%.

Conclusion: Amazon Aware Bathroom Cleaner was more effective in the removal of Bathroom Soil from ceramic, plastic, and chrome substrates than the comparison product.