CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2020

DateRun: 02/27/2020

Experimenters: Duc Vu, Hannah Ritchie, Tatyanna Moreland Junior

ClientType: Cleaner Manufacturer

ProjectNumber: Project #1

Substrates: Glass/Quartz, Stainless Steel, Marble

PartType: Coupon

Contaminants: Hucker's Soil

Cleaning Methods: Manual Wipe

Analytical Methods: Gravimetric

Purpose: To evaluate the effectiveness of various cleaners on different surfaces.

Experimental Procedure: Three Coupons were gathered for each substrate. Since the same substrates were tested with two different cleaners, a total of 18 coupons were used. The initial weights of the coupons were then measured and recorded in the lab notebook. Approximately 0.5 grams of Hucker's Soil (44.2 % Distilled Water, 13.5 % Evaporated milk, 8.8% creamy peanut butter, 8.8 % salted butter, 8.8sone ground what flour, 8.8 % egg yolk, 0.9% printer's ink with boiled linseed oil, 2.7% saline soil, and 3.5% India Ink) was then spread onto the coupons whose masses were then measured and recorded in the lab notebook.

After being left to age overnight, 3 coupons all of the same type of substrate, were then placed in the Manual SLW Unit. After placing the auxiliary pieces into the unit to stabilize the coupons, the wooden block attachment wrapped in the respective cleaner soaked Wypall strip was then equipped. With the wooden block and the Wypall with the respective cleaner attached and the coupons in place, the coupons were then sprayed approximately twice each coupon. The SLW Unit was then turned on and allowed to run for 20 cycles each cleaning test session. After the cleaning sessions for each coupon, the coupons were then weighed again, and their masses recorded in the lab notebook.

Results:

Cleaner	Substrate	Initial wt of cont.	Final wt of cont.	%Cont Removed	Average % Removal	Overall % Removal
1	1	0.5411	0.0285	94.73	81.61	89.62
		0.4828	0.0614	87.28		
		0.4638	0.1724	62.83		
	2	0.5032	0.0418	91.69	91.42	
		0.4216	0.0384	90.89		
		0.5213	0.0434	91.67		
	3	0.4843	0.0161	96.68	95.82	
		0.4777	0.0088	98.16		
		0.4628	0.0341	92.63		
2	1	0.6301	0.1658	73.69	88.84	91.97*
		0.5453	0.0183	96.64		
		0.5058	0.0192	96.20		
	2	0.5201	0.0449	91.37	89.16	
		0.4767	0.0926	80.57		
		0.5141	0.0229	95.55		
	3	0.4335	0.0108	97.51	97.89	
		0.4748	0.0084	98.23		
		0.5746	0.0119	97.93		

*During the cleaning sessions with the Seventh Generation All Purpose, there was notable streaking with each substrate that was not apparent when cleaning with the Ambrosia Veles All Purpose.

Summary:

Substrates:	Glass/Quartz, Stainless Steel, Marble				
Contaminants:	Hucker's Soil				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Ambrosia Industrial-Organic	Ambrosia Veles All Purpose	100	89.62	☑	
Seventh Generation	All Purpose Morning Meadow	100	91.97	☑	

Conclusion:

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Between the two products, Seventh Generation All Purpose and Ambrosia Veles All Purpose, both cleaners were effective in removing the Hucker's Soil from the various glass, marble, and stainless-steel substrates. While both cleaners were effective, Seventh Generation All Purpose was slightly more effective, however, the difference between the two in terms of effectiveness is minimal. While Seventh Generation was more effective, both cleaners were of the same caliber in the removal of the Hucker's Soil from the various substrates. There was also a notable difference when cleaning with the Seventh Generation All Purpose cleaner where there was very prominent streaking.