CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2021

DateRun: 09/02/2021

Experimenters: Alicia McCarthy, Zoe Lawson, Nicole Kebler

ClientType:

ProjectNumber: Project #1

Substrates: Ceramics, Plastic, Stainless Steel, Painted metal

PartType: Coupon

Contaminants: Hucker's Soil

Cleaning Methods: Manual Wipe

Analytical Methods: Gravimetric, Visual

Purpose: To test the effectiveness of The Pink Stuff on ceramic, painted steel, plastic and stainless steel substrates.

Experimental Procedure: Twenty-four pre-weighed coupons, three of each substrate per cleaner, were soiled with a gram of Hucker's soil (Creamy Peanut Butter 8.8%, Salted Butter 8.8%, Wheat gluten 8.8%, Egg Yolk 8.8%, Evaporated milk 13.5%, DI water 44.2%, Printer's ink with boiled linseed oil 0.9%, India Ink 3.5%, Saline Solution 2.7%) distributed onto each coupon using a swab. Dirty weights were recorded after the coupons had dried for 24 hours at room temperature (68° F). Three coupons of the same substrate were aligned into a Single Line Washing Unit (SLW) with Wypall X60 attached to the cleaning sled. The Wypall X60 reinforced wipe along with the coupons were all sprayed twice times with water after a small amount of cleaner was added to each coupon, and then allowed to soak for 30 seconds. Afterward, the SLW was activated, and the coupons were cleaned for 20 cycles. the Wypall was removed and a clean one was added to the sled. The Wypall and the coupons were sprayed once and were cleaned for an additional 20 cycles. Cleaned coupons dried overnight at room temperature before the final weights were recorded.

Results: Soft Scrub had an effectiveness of over 99% removal for all four substrates. The Pink Stuff had 99% removal for ceramic and painted metal and had a 95% removal for plastic. The effectiveness for stainless steel was lower at 83% removal.

Cleaner	Substrate	Initial wt. of Cont.	Final wt. of Cont	Average	Combined Average
Soft Scrub	Ceramic	0.2145	0.0004	99.81	100.45
		0.2389	-0.0047	101.97	
		0.2116	0.0009	99.57	
	Painted Steel	0.1980	0.0048	97.58	98.90
		0.1956	0.0010	99.49	
		0.1882	0.0007	99.63	
	Plastic	0.2070	0.0051	97.54	102.09
		0.1821	0.0013	99.29	
		0.0941	-0.0089	109.46	
	Stainless Steel	0.2827	0.0071	97.49	98.85
		0.2657	0.0020	99.25	
		0.2787	0.0005	99.82	
The Pink Stuff	Ceramic	0.1869	0.0022	98.82	98.85
		0.2172	-0.0004	100.18	
		0.0769	0.0019	97.53	
	Painted Steel	0.2470	0.0008	99.68	98.71
		0.2503	0.0081	96.76	
		0.2176	0.0007	99.68	
	Plastic	0.2277	0.0092	95.96	94.95
		0.2102	0.0035	98.33	
		0.2469	0.0233	90.56	
	Stainless Steel	0.1906	0.0353	81.48	82.86
		0.1973	0.0545	72.38	
		0.2157	0.0114	94.71	

Summary:

Substrates:	Ceramics, Plastic, Stainless Steel, Painted metal
Contaminants:	Hucker's Soil

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Company Name:	Product Name:	Conc.:	Efficiency:	Effective:	Observations:
Henkel Corporation	Soft Scrub Total All Purpose Cleaner	RTU	99.00	☑	Soft Scrub was effective for the removal of Huckers soil from ceramic, painted metal, plastic and stainless steel.
Star Drops	The Pink Stuff	RTU	95.00	☑	The Pink Stuff was effective for the removal of Huckers soil from ceramic, painted metal and plastic.

Conclusion: The Pink Stuff performed comparably to soft scrub for ceramic, painted metal, and plastic, however, it had lower removal effectiveness for stainless steel.