CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2021

DateRun: 06/01/2021

Experimenters: Nicole Kebler

ClientType:

ProjectNumber: Project #1

Substrates: Ceramics, Plastic, Stainless Steel

PartType: Coupon

Contaminants: Hucker's Soil

Cleaning Methods: Manual Wipe

Analytical Methods: Gravimetric, Visual

Purpose: To evaluate the effectiveness of Sims all-purpose cleaner using Huckers soil on ceramic, stainless steel, and plastic substrates.

Experimental Procedure: This procedure followed the All-Purpose GS 37 procedure. Three coupons for each substrate per cleaner were selected and weighed for initial weights. The coupons were then soiled with Huckers soil that was previously made and were left to dry for two hours. After the two hours, the dirty weights were recorded for each coupon. The coupons were then placed in the Straight Line Washability (SLW) unit, three at a time with the same substrate. The Kimberly-Clark Wypall was attached to the cleaning sled and was sprayed twice, each coupon was also sprayed twice with the appropriate cleaner. The SLW unit was run for 20 cycles, and the coupons were removed from the unit and placed on a paper towel to dry overnight. After they were completely dry, the clean weights were recorded.

Cleaners Used:

- Sims All-Purpose
- Formula 409

Results: Both cleaners were very effective for the removal of Huckers soil on all three substrates. Both cleaners had above 95% effectiveness for ceramic and stainless steel and both had about 93% effectiveness for plastic. Visually the coupons were clean after the first few wipes on the SLW unit but were still run for the full 20 cycles. Formula 409 had an average above 100% probably due to the coupon having left over soil from a previous test on it during the initial weights or may be due to a scaling error.

Cleaner	Substrate	Initial wt. of cont	Final wt. of cont	% Removal	Average
All-Purpose	Ceramic	0.0614	0.0029	95.28	95.67
		0.0673	0.0023	96.58	
		0.0537	0.0026	95.16	
	Stainless Steel	0.0907	0.0056	93.83	96.38
		0.1212	0.0040	96.70	
		0.2524	0.0035	98.61	
	Plastic	0.108	0.0067	93.80	93.23
		0.1721	0.0145	91.57	
		0.1532	0.0087	94.32	
Formula 409	Ceramic	0.2179	0.0072	96.70	95.44
		0.0609	0.0033	94.58	
		0.0686	0.0034	95.04	
	Stainless Steel	0.1958	0.0024	98.77	100.74
		0.1424	-0.0063	104.42	
		0.2042	0.0020	99.02	
	Plastic	0.1767	0.0114	93.55	93.93
		0.1128	0.0081	92.82	
		0.1873	0.0086	95.41	

Summary:

Substrates:	Ceramics, Plastic, Stainless Steel				
Contaminants:	Hucker's Soil				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**

CLEANING LABORATORY EVALUATION SUMMARY

	Clorox Company	Formula 409 All Purpose Cleaner	RTU	95.00	☑	Formula 409 was effective for the removal of Huckers soil from ceramic, stainless steel, and plastic.
	Sims Consumer Brand	Sims All-Purpose	RTU	95.00	☑	Sims All-Purpose cleaner was effective for the removal of Huckers soil from three substrates.

Conclusion: Both cleaners were very effective for the removal of Huckers soil from ceramic, stainless steel, and painted metal.