CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2021

DateRun: 11/17/2021

Experimenters: Nicole Kebler, Tatyanna Moreland Junior

ClientType: Lab

ProjectNumber: Project #5

Substrates: Ceramics, Plastic, Chrome

PartType: Coupon

Contaminants: Soaps

Cleaning Methods: Manual Wipe

Analytical Methods: Gravimetric, Visual

Purpose: To test the effectiveness for the removal of bathroom soil from ceramic, chrome, and plastic using Earth Essentials cleaner.

Experimental Procedure: Three coupons of each substrate (ceramic, chrome, and plastic) 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 Straight-Line Washability (SLW) machine. A KC Wypall cleaning cloth was attached to the cleaning block used for the test. The Wypall cloth and all coupons received 2 sprays of the Earth Essentials Cleaner and the SLW machine 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.

Results: The highest removal effectiveness was plastic with 79% removal. Next was chrome with 78% removal and ceramic with 76% removal. Soil was left on the surface of all three substrates.

Substrate	Initial wt. of cont.	Final wt. of cont	Average	Combined Average
Ceramic	0.1830	0.0503	72.51	75.89
	0.1548	0.0374	75.84	
	0.1939	0.0401	79.32	
Chrome	0.1931	0.0282	85.40	77.60
	0.1561	0.0229	85.33	
	0.2209	0.0838	62.06	
Plastic	0.1451	0.0359	75.26	79.46
	0.0965	0.0182	81.14	
	0.1010	0.0182	81.98	

Summary:

Conclusion: Earth Essentials was not fully effective for the removal of bathroom soil from all three substrates and some soil was left on the coupons.