CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2021

DateRun: 07/11/2021

Experimenters: Ross Goding, Edward Judge

ClientType: Lab

ProjectNumber: Project #4

Substrates: Ceramics, Plastic, Painted metal

PartType: Coupon

Contaminants: Hucker's Soil

Cleaning Methods: Manual Wipe

Analytical Methods: Gravimetric, Visual

Purpose: To test the effectiveness of Ever Spring Cleaner in the removal of Hucker's Soil from various substrates.

Experimental Procedure: An Ever Spring Cleaner solution was gathered to begin testing. Then, 3 coupons of each substrate (ceramic, plastic, painted metal) were collected and initial weights were taken. Hucker's Soil (Creamy Peanut Butter, Salted Butter, Wheat gluten, Egg Yolk, Evaporated milk, DI water, Printer's ink with boiled linseed oil, India Ink, Saline Solution) was applied to each coupon and allowed to air dry for 2 hours. After the 2 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 Ever Spring Cleaner solution 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.

Results:

Cleaner	Substrate	Initial wt of cont.	Final wt of cont.	%Cont Removed	% AVG	% Overall
Ever Spring	Ceramic	0.2103	0.0157	92.53	91.09	90.32
		0.0745	0.0115	84.56		
		0.2067	0.0122	94.10		
	Plastic	0.3749	0.0257	93.14	94.94	
		0.5757	0.0308	94.65		
		1.3154	0.0392	97.02		
	Painted Metal	0.3526	0.0635	81.99	84.93	
		1.2939	0.0324	97.50		
		0.3489	0.0862	75.29		

Summary:

Conclusion: Ever Spring Cleaner was effective in the removal of Hucker's Soil from ceramic, plastic, and painted metal substrates.