CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2021

DateRun: 09/12/2021

Experimenters: Edward Judge

ClientType: Lab

ProjectNumber: Project #5

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 Lysol with Hydrogen Peroxide in the removal of Hucker's Soil from various substrates.

Experimental Procedure: A Lysol with Hydrogen Peroxide 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 Lysol with Hydrogen Peroxide 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
Lysol with Hydrogen Peroxide	Ceramic	0.4221	0.0064	98.48	92.85	96.42
		0.5035	0.0272	94.60		
		0.3813	0.0761	80.04		
	Plastic	0.7239	0.0125	98.27	98.28	
		0.7432	0.0096	98.71		
		0.5276	0.0113	97.86		
	Painted Metal	0.7531	0.0041	99.46	98.14	
		0.6137	0.0174	97.16		
		0.6247	0.0137	97.81		

Summary:

Conclusion: Lysol with Hydrogen Peroxide was effective in the removal of Hucker's Soil from ceramic, plastic, and painted metal substrates.