CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2021

DateRun: 08/03/2021

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 Comet Cleaner with Bleach in the removal of Hucker's Soil from various substrates.

Experimental Procedure: Comet Cleaner with Bleach and a spray bottle of water were 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 water and Comet Cleaner with Bleach was sprinkled across each coupon. 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
Comet Cleaner with Bleach	Ceramic	0.2386	0.0137	94.26	90.29	89.19
		0.2508	0.0312	87.56		
		0.2892	0.0215	92.57		
	Plastic	0.2680	0.0354	86.79	83.89	
		0.3154	0.0583	81.52		
		0.3838	0.0638	83.38		
	Painted Metal	0.4333	0.0241	94.44	93.37	
		0.4295	0.0327	92.39		
		0.5268	0.0354	93.28		

Summary:

Substrates:	Ceramics, Plastic, Painted metal				
Contaminants:	Hucker's Soil				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Procter & Gamble	Comet with Bleach	100%	89.19	☑	Comet Cleaner with Bleach was effective in the removal of Hucker's Soil from various substrates.

Conclusion: Comet Cleaner with Bleach was successful in the removal of Hucker's Soil from ceramic, plastic, and painted metal substrates.