CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2021

DateRun: 08/03/2021

Experimenters: Ross Goding, Edward Judge

ClientType: Lab

ProjectNumber: Project #4

Substrates: Ceramics, Plastic, Chrome

PartType: Coupon

Contaminants: Soaps

Cleaning Methods: Manual Wipe

Analytical Methods: Gravimetric, Visual

Purpose: To test the effectiveness of Comet Cleaner with Bleach in the removal of Bathroom 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, chrome) 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 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	0.0563	0.0035	93.78	80.18	74.04
		0.0422	0.0112	73.46		
		0.0602	0.0145	75.91		
	Plastic	0.1363	0.0306	77.55	79.00	
		0.1565	0.0149	90.48		
		0.0709	0.0220	68.97		
	Chrome	0.0639	0.0124	80.59	62.95	
		0.0370	0.0179	51.62		
		0.0572	0.0248	56.64		

Summary:

Substrates:	Ceramics, Plastic, Chrome				
Contaminants:	Soaps				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Procter & Gamble	Comet with Bleach	100%	74.04	☐	Comet Cleaner with Bleach was not effective in the removal of Bathroom Soil from various substrates.

Conclusion: Comet Cleaner with Bleach showed limited success in the removal of Bathroom Soil from ceramic, plastic, and chrome substrates.