CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2021

DateRun: 03/02/2021

Experimenters: Ross Goding, Nicole Kebler

ClientType: Cleaner Manufacturer

ProjectNumber: Project #2

Substrates: Ceramics, Plastic, Chrome

PartType: Coupon

Contaminants: Calcium/lime

Cleaning Methods: Manual Wipe

Analytical Methods: Gravimetric

Purpose: The purpose of this test was to evaluate the removal of SCL Soil 1 Bathroom from 3 surfaces (chrome, ceramic, plastic) using Pathosans bathroom cleaner and 409 all purpose cleaner.

Experimental Procedure: First, 18 coupons were obtained, 3 for each of the 2 supplied cleaner. One being Pathosans bathroom cleaner and the other being 409 all-purpose cleaner. There were also 3 types of coupons used which included ceramic, chrome plated aluminum, and plastic. 3 of each of these substrates, a total of 9, were used per cleaner. Initial weights were obtained in order to use it as a standard and determine how much soil is removed after cleaning. Each coupon was soiled with 1.0 gram of SCL Soil 1 Bathroom. The soiled coupons were allowed to sit overnight in order for the soil to settle before taking the dirty weights. The next day, dry dirty weights were taken. The specified cleaners were then used respectively on their chosen set of coupons. The SLW machine was used in order to simulate a manual wiping method. The coupons were then sprayed (each 3 times) by the product being used along with 3 sprays for the unit's wiper as well. Each set of 3 coupons was then manually wiped 20 times by this SLW unit. After cleaning, the coupons were allowed to sit for an hour and dry before taking final weights. Final weights were then measured, and the efficiency of the cleaners were recorded.

Results:

Cleaner	Substrate	Coupon	Initial wt	Final wt.	% Removal	Average % removal	Product removal
1	1	17	0.8302	0.0132	98.41	98.91	99.12
		20	1.1356	0.0065	99.43		
		7	0.9762	0.0109	98.88		
	2	3	1.1402	0.0041	99.64	99.36	
		85	0.9309	0.0148	98.41		
		20	0.9912	-0.0003	100.03		
	3	138	0.6588	0.0066	99.00	99.09	
		88	0.8626	0.0034	99.61		
		92	0.8403	0.0112	98.67		
2	1	25	1.0386	0.0149	98.56	98.52	98.94
		19	1.0673	0.0162	98.48		
		24	0.9173	0.0137	98.51		
	2	17	1.0778	0.0287	97.341	100.22	
		3	0.9173	0.0069	99.25		
		1	1.0403	-0.0424	104.08		
	3	18	0.7769	0.0106	98.64	98.08	
		12	0.8876	0.0171	98.07		
		33	1.1157	0.0275	97.54		

Summary:

Substrates:	Ceramics, Plastic, Chrome				
Contaminants:	Calcium/lime				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
PathoSans	PathoClean	100	99.12	☑	
Clorox Company	Formula 409 All Purpose Cleaner	100	98.94	☑	

Conclusion: Both cleaners fared very well with the removal of SCL from the given substrates. Product 1 (being Pathosans Bathroom) had a 99% removal rating overall compared to product 2 (409 all purpose) which was 98% removal. Overall, both cleaners performed sufficiently with minimal residue leftover after cleaned and air dried. Both supplied products have met the satisfactory cleaning rating.