CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2021

DateRun: 07/20/2021

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 Murphy Oil Soap in the removal of Bathroom Soil from various substrates.

Experimental Procedure: A Murphy Oil Soap solution was created by mixing 3mL of Murphy Oil Soap with 192mL of water. 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 the Murphy Oil Soap 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
Murphy Oil Soap	Ceramic	0.1075	0.0075	93.02	83.74	83.18
		0.1460	0.0088	93.97		
		0.1333	0.0635	52.36		
	Plastic	0.1882	0.0083	95.59	82.90	
		0.1883	0.0071	96.23		
		0.1971	0.0850	56.87		
	Chrome	0.1807	0.0078	95.68	82.89	
		0.1893	0.0178	90.60		
		0.1960	0.0737	62.40		

Summary:

Substrates:	Ceramics, Plastic, Chrome				
Contaminants:	Soaps				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Colgate-Palmolive Company	Murphy Oil Soap	1:64	83.18	☑	Murphy Oil Soap was effective in the removal of Bathroom Soil from various substrates.

Conclusion: Murphy Oil Soap was successful in the removal of Bathroom Soil from ceramic, plastic, and chrome substrates.