CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2021

DateRun: 05/24/2021

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 Palmolive Dish Liquid for the removal of bathroom soil from various substrates

Experimental Procedure: A Palmolive Dish Liquid solution was created by mixing 1 part dish liquid with 20 parts water. Then, 3 coupons of each substrate (ceramic, chrome, plastic) 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 Palmolive Dish Liquid 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
Palmolive Dish Liquid	Ceramic	0.0691	0.0048	93.05	85.31	84.89
		0.1060	0.0066	93.77		
		0.0997	0.0393	60.58		
	Chrome	0.1358	0.0084	93.81	83.49	
		0.1612	0.0135	91.63		
		0.1444	0.0505	65.03		
	Plastic	0.1367	0.0094	93.12	85.86	
		0.1677	0.0073	95.65		
		0.1562	0.0487	68.82		

Summary:

Substrates:	Ceramics, Plastic, Chrome				
Contaminants:	Soaps				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Colgate-Palmolive Company	Palmolive Dish Soap	1/20	84.89	☑	Palmolive Dish Liquid was effective in the removal of Bathroom Soil from various substrates.

Conclusion: Palmolive Dish Liquid was analyzed to determine its effectiveness in the removal of bathroom soil from ceramic, chrome, and plastic substrates. The Palmolive solution was found to be 85.31% effective in the removal of bathroom soil from ceramic, 83.49% effective in the removal of bathroom soil from chrome, and 85.86% effective in the removal of bathroom soil from plastic. Overall, the Palmolive solution was 84.89% effective in removing bathroom soil from all substrates tested.