CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	2021
DateRun:	05/04/2021
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 analyze the efficiency of Gain Dishwashing solution in the removal of Hucker's soil from various substrates
Experimental Procedure:	Gain dishwashing cleaning solution was created by mixing 1/3 gain dishwashing solution and 2/3 water. This solution was put into a spray bottle for easy application to coupons. 3 coupons of each substrate were selected (ceramic, plastic, and painted metal) and initial coupon weights were recorded. 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 administered to each coupon, and was allowed to air dry for 2 hours. Contaminated weights were recorded once all coupons were dried for the 2 hours. 3 coupons of each substrate were placed into the SLW machine while a Wypall cleaning cloth was fixed to the cleaning block. The Gain dishwashing solution was administered to each coupon and the Wypall cloth with 2 sprays on each. The SLW machine was run for 20 repetitions, simulating 20 manual wipes. Coupons were removed from the SLW machine and allowed to air dry for 24 hours. After 24 hours, clean weights were recorded.

Results:

Cleaner	Substrate	Initial wt of cont.	Final wt of cont.	%Cont Removed	% AVG	% Overall
Gain Dishwashing	Ceramic	0.3122	0.0065	97.92	84.55	88.70
		0.2168	0.0255	88.24		
		0.1701	0.0658	61.32		
	Plastic	0.4247	0.0393	90.75	92.11	
		0.4493	0.0509	88.67		
		0.4537	0.0140	96.91		
	Painted Metal	0.3154	0.0076	97.59	89.44	
		0.1821	0.0291	84.02		
		0.2190	0.0291	86.71		

Summary:

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Company Name:	Product Name:	Conc.:	Efficiency:	Effective:	Observations:
Korex Canada	Gain Formula (revised 15-359)	1/3	88.70	☑	Gain Dishwashing was effective in removing Hucker's Soil from various substrates.

Conclusion: Gain dishwashing solution removed 84.5% of Hucker's soil from ceramic coupons on average, 92.1% of Hucker's soil from plastic coupons on average, and 89.4% of Hucker's soil from painted metal coupons on average. Overall, Gain dishwashing solution removed 88.7% of Hucker's soil from all substrates on average