CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	2019
DateRun:	06/27/2019
Experimenters:	Justin Rainaud
ClientType:	Cleaner Manufacturer
ProjectNumber:	Project #1
Substrates:	Ceramics, Plastic, Painted metal
PartType:	Coupon
Contaminants:	Hucker's Soil
Cleaning Methods:	Manual Wipe
Analytical Methods:	Gravimetric, Visual
Purpose:	To evaluate the effectiveness of the Better Life All-Purpose cleaner and a comparative product in removing Hucker's Soil from plastic, ceramic, and painted steel coupons.
Experimental Procedure:	Nine pre-weighed coupons, three of each substrate per cleaner, were contaminated with one gram of Hucker's Soil Formulation (Jiff Creamy Peanut Butter 9.2%, Salted Butter 9.2%, Arrowhead Mills stone ground wheat flour 9.2%, Egg Yolk 9.2%, Evaporated milk 13.8%, Distilled water 45.8%, Printer's ink with boiled linseed oil 0.9%, Shaws saline Solution 2.7%) using a handheld swab and dried for 24 hours at room temperature (68 F). The contaminated coupons were weighed before placing three coupons per cleaner of the same substrate into a Gardner Straight Line Washability (SLW) unit. A Kimberly-Clark Wypal reinforced paper towel was attached to the cleaning sled. The Wypal and each coupon was treated with three sprays and cleaned for 20 cycles (~30 seconds of cleaning). Cleaned coupons were wiped once with a dry paper towel before final weights were taken.

Results:

Cleaner	Substrate	Initial wt. of cont.	Final wt. of cont.	%Cont. Removed
Better Life All Purpose Clary Sage	Plastic	0.3612	0.0477	86.81
		0.3545	0.0454	87.19
		0.3431	0.0436	87.29
	Ceramic	0.3467	0.0925	73.32
		0.3420	0.0413	87.92
		0.3441	0.0443	87.13
	Painted Steel	0.3409	0.0500	85.33
		0.3546	0.0496	86.01
		0.3614	0.0611	83.09
7^{th} Generation All Purpose Morning Meadow	Plastic	0.3543	0.0226	93.62
		0.3566	0.0397	88.87
		0.3538	0.0393	88.89
	Ceramic	0.3489	0.0143	95.90
		0.3658	0.0423	88.44
		0.3509	0.0083	97.63
	Painted Steel	0.3604	0.0529	85.32
		0.3668	0.0727	80.18
		0.3628	0.0507	86.05

Summary:

Substrates:	Ceramics, Plastic, Painted metal				
Contaminants:	Hucker's Soil				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Better Life	All-Purpose Cleaner	100%	84.90	☑	
Seventh Generation	All Purpose Morning Meadow	100%	89.43	☑	

Conclusion:

Better Life All Purpose Clary Sage cleaner is as effective as 7^{th} Generation All Purpose Morning Meadow cleaner.