CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	2014
DateRun:	09/28/2014
Experimenters:	Loc Nguyen, George Liang
ClientType:	Cleaner Manufacturer
ProjectNumber:	Project #4
Substrates:	Ceramics, Plastic, Chrome
PartType:	Coupon
Contaminants:	Films, Soaps
Cleaning Methods:	Manual Wipe
Analytical Methods:	Gravimetric
Purpose:	To evaluate two supplied products for bathroom cleaning
Experimental Procedure:	The supplied cleaning products were used at the recommended concentration. Pre-weighed ceramic, plastic and chrome coupons were coated with SSL Soil 1 (Bathroom soap scum: All-in-one shampoo and conditioner 28.6%, Dry skin lotion 21.4%, Liquid hand soap 21.4%, Liquid body wash 14.3%, Deodorant bar soap 7.2% and water 7.1%) using a handheld swab and allowed to dry for 24 hours at room temperature. The contaminated coupons were weighed again to determine the amount of soil added. Three coupons were placed into a Gardner Straight Line Washability unit. A Wypall X60 reinforced wipe was attached to the cleaning sled and soaked with 1-2 spray of cleaning solutions. Each coupon was sprayed 1-2 times with the same cleaning solution. The solution was allowed to penetrate for 30 seconds followed by cleaning in the SLW unit for 20 cycles (~33 seconds). At the end of the cleaning, coupons were wiped once with a dry paper towel. Final weights were measured and efficiencies were calculated and recorded. Chemistries Evaluated: Multi-Purpose; Neutral- Floor

Results:

Cleaner	Initial wt	Final wt	% Removed
Multi-Purpose _ceramic	0.4538	0.0452	90.04
Multi-Purpose _ceramic	0.4698	0.0564	87.99
Multi-Purpose _ceramic	0.4403	0.0472	89.28
Multi-Purpose _plastic	0.5564	0.0205	96.31
Multi-Purpose _plastic	0.6361	0.0134	97.89
Multi-Purpose _plastic	0.6091	0.0273	95.51
Multi-Purpose _chrome	0.4660	0.0608	86.95
Multi-Purpose _chrome	0.4344	0.0822	81.07
Multi-Purpose _chrome	0.4168	0.0643	84.57
Neutral-Floor_ceramic	0.4705	0.0351	92.53
Neutral-Floor_ceramic	0.3390	0.0338	90.02
Neutral-Floor_ceramic	0.3483	0.0325	90.66
Neutral-Floor _plastic	0.4032	0.0422	89.53
Neutral-Floor _plastic	0.3657	0.0289	92.09
	0.3645	0.0347	90.48

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Neutral-Floor _plastic			
Neutral-Floor _chrome	0.3254	0.0615	81.10
Neutral-Floor _chrome	0.2932	0.1633	44.30
Neutral-Floor _chrome	0.3206	0.1483	53.74

Summary:

Substrates:	Ceramics, Plastic, Chrome
Contaminants:	Films, Soaps

Company Name:	Product Name:	Conc.:	Efficiency:	Effective:	Observations:
EnvirOx LLC	Multi-Purpose Hyper	100	0.00	☑	
EnvirOx LLC	Green Certified Neutral Floor Cleaner Hyper Concentrated	100	0.00	☐	

Conclusion:

A cleaning product is considered effective when the efficiency of the product removes 85% of the soil and above. Multi-purpose was effective at removing the bathroom soil. In addition, multi-purpose cleaner is slightly more effective at cleaning the bathroom soil than Neutral-floor cleaner.