CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	2010
DateRun:	08/18/2010
Experimenters:	Jason Marshall, Timothy Weil
ClientType:	Cleaner Manufacturer
ProjectNumber:	Project #1
Substrates:	Ceramics, Fiberglass, Chrome, Porcelain
PartType:	Coupon
Contaminants:	Films, Soaps
Cleaning Methods:	Manual Wipe
Analytical Methods:	Gravimetric
Purpose:	To evaluate the supplied products for bathroom cleaning using manual cleaning
Experimental Procedure:	The supplied cleaning products were used at the recommended concentration. Preweighed chrome, ceramic, fiberglass and porcelain, 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 5-7 sprays of cleaning solutions. Each coupon was sprayed 7-10 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 sprayed with tap water and wiped dry for 5 cycles using a fresh paper towel attached to the Washability unit. Final weights were recorded, and efficiencies were calculated.
Results:	The supplied cleaner was still left residue behind after the water rinse. The conventional product had less residue than the supplied cleaner. Both products removed less than 85% with the modified cleaning process. Both improved over the previous trial without the spray rinse. The table lists the amount of soil added, the amount remaining and efficiency for each coupon cleaned.

Cleaner	Initial wt	Final wt	% Removed
Soft Scrub - ceramic			
	0.0567	0.0123	78.31
	0.1138	0.0161	85.85
	0.2213	0.0149	93.27
Soft Scrub - chrome			
	0.1147	0.0430	62.51
	0.1549	0.0355	77.08
	0.1157	0.0383	66.90
Soft Scrub - fiberglass			
	0.1098	0.0117	89.34
	0.1131	0.0227	79.93
	0.1237	0.0214	82.70
Soft Scrub - porcelain			
	0.0490	0.0065	86.73
	0.0502	0.0051	89.84
	0.0624	0.0076	87.82
NewLeaf Bathroom - ceramic			
	0.0964	0.0299	68.98
	0.0207	0.0085	58.94
	0.2914	0.0427	85.35
NewLeaf Bathroom - chrome			
	0.0996	0.0086	91.37
	0.1156	0.0087	92.47

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	0.1152	0.0093	91.93
NewLeaf Bathroom - fiberglass			
	0.1498	0.0245	83.64
	0.1381	0.0604	56.26
	0.1322	0.0437	66.94
NewLeaf Bathroom - porcelain			
	0.1425	0.0462	67.58
	0.0730	0.0146	80.00
	0.0737	0.0350	52.51

Summary:

Substrates:	Ceramics, Fiberglass, Chrome, Porcelain				
Contaminants:	Films, Soaps				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Henkel Corporation	Soft Scrub with Bleach	100	81.69	☐	
New Leaf Clean LLC	New Leaf Bathroom Cleaner	100	74.66	☐	

Conclusion: The supplied product had an overall average efficiency less than 85% but compared consistently with the thicker conventional cleaning product.