CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	2012
DateRun:	11/26/2012
Experimenters:	Anni Geng
ClientType:	Cleaner Manufacturer
ProjectNumber:	Project #1
Substrates:	Ceramics, Plastic, Steel
PartType:	Part
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 supplied concentrations. Preweighed chrome, ceramic and fiberglass, 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 2-3 sprays 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 recorded and efficiencies were calculated and recorded.
Results:	The Mohawk Tile & Grout and Pledge MultiSurface products both removed over 85% of the bathroom soap scum soil from the surfaces using manual cleaning. The Softscrub removed 44%. The lower removal rate was due to the residue left behind from the cleaning product. A wet or dry wipe after cleaning would help to remove the cleaning residue and improve performance. The table lists the amount of soil added, the amount remaining and the efficiency for each coupon cleaned.

Cleaner	Initial wt	Final wt	% Removed
Product 1 Ceramic			
	80.117	80.118	98.23
	79.823	79.824	98.66
	77.407	77.409	98.13
Product 1 Fiberglass			
	32.675	32.680	95.06
	32.084	32.098	80.43
	32.201	32.210	88.15
Product 1 Chrome			
	21.733	21.737	88.85
	21.788	21.792	88.79
	21.767	21.772	87.15
Product 2 Ceramic			
	80.838	80.942	22.32
	69.599	69.664	36.73
	80.715	80.783	43.09
Product 2 Fiberglass			
	32.641	32.694	38.24
	32.305	32.377	18.14
	32.367	32.401	49.55
Product 2 Chrome			
	21.788	21.800	84.96
	21.728	21.770	44.30

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	21.745	21.765	64.29
Product 3 Ceramic			
	72.399	72.409	90.22
	76.519	76.538	88.66
	80.031	80.051	87.51
Product 3 Fiberglass			
	32.209	32.221	84.35
	32.184	32.196	75.92
	32.603	32.620	83.61
Product 3 Chrome			
	21.782	21.787	88.24
	21.672	21.678	88.21
	21.726	21.729	92.49

Summary:

Substrates:	Ceramics, Plastic, Steel				
Contaminants:	Films, Soaps				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Henkel Corporation	Soft Scrub with Bleach	100	44.62	☐	

Conclusion:

The Mohawk Tile & Grout and Pledge Multisurface products had an overall average efficiency over 85% and performed better than the Soft Scrub Lemon product. The Mohawk Tile & Grout performed best cleaning efficiently out of the three products. The Softscrub Lemon product produced a lot of residual after manual wipe cleaning and would benefit from a rinse using wet towel.