CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	2012
DateRun:	11/07/2012
Experimenters:	Johnny Le, Loc Nguyen, Nathalie Regis, Anni Geng, Mina Le
ClientType:	Cleaner Manufacturer
ProjectNumber:	Project #1
Substrates:	Ceramics, Plastic, Chrome
PartType:	Coupon
Contaminants:	Films, Soaps
Cleaning Methods:	Manual Wipe
Analytical Methods:	Gravimetric
Purpose:	To evaluate supplied product tablet for bathroom cleaning
Experimental Procedure:	The supplied cleaning product was used at the recommended concentration (2.5g per 16 ounces water). A comparative product was used at the ready-to-use concentration. 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 2-3 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:	Both products removed more than 90% of the bathroom soap scum mixture using manual wiping for 30 seconds. The table lists the amount of soil added, the amount remaining and the efficiency of each coupon cleaned.

Cleaner	Initial wt	Final wt	% Removed
Sunstate - ceramic			
	0.0639	0.0070	89.05
	0.0343	0.0046	86.59
	0.0113	0.0009	92.04
Sunstate - plastic			
	0.0512	-0.0001	100.20
	0.0347	0.0035	89.91
	0.0281	0.0031	88.97
Sunstate - chrome			
	0.0684	0.0035	94.88
	0.0401	0.0020	95.01
	0.0311	0.0049	84.24
Comet - ceramic			
	0.0320	0.0015	95.31
	0.0298	0.0017	94.30
	0.0307	0.0019	93.81
Comet - plastic			
	0.0280	0.0005	98.21
	0.0187	0.0026	86.10
	0.0830	0.0000	100.00
Comet - chrome			
	0.0252	0.0020	92.06
	0.0496	0.0094	81.05
	0.0308	0.0033	89.29

Summary:

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Contaminants:	Films, Soaps				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Sunstate Laboratory LLC	Sunstate All Purpose Cleaner Tablet	15	91.21	☑	
Clorox Company	Disinfecting Bathroom Cleaner	100	92.24	☑	

Conclusion: The supplied product worked as well as the on-the-market product for bathroom cleaning.