CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	2009
DateRun:	08/11/2009
Experimenters:	Junhee Cho
ClientType:	Cleaner Manufacturer
ProjectNumber:	Project #1
Substrates:	Ceramics, Fiberglass, Chrome
PartType:	Coupon
Contaminants:	Films, Soaps
Cleaning Methods:	Manual Wipe
Analytical Methods:	Gravimetric
Purpose:	To evaluate four products for bathroom 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 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 wiped once with a dry paper towel. Final weights were recorded, and efficiencies were calculated and recorded. In addition to the supplied products, one traditional cleaning product was used for comparative purposes. A sixth product that uses electrolyzed water was included in the testing.
Results:	All of the products tested were effective at removing over 90% of the bathroom soap scum from the three surface types. The ActiveIon unit had the top cleaning efficiency, followed by the MD Stetson PC 116.

Cleaner	Initial wt	Final wt	% Removed
MD Stetson PC 116 1:48_ceramic			
	0.2586	0.0095	96.33
	0.2839	0.0072	97.46
	0.2702	0.0008	99.7
MD Stetson PC 116 1:48_chrome			
	0.1425	0.0039	97.26
	0.1007	0.002	98.01
	0.0855	0.0053	93.8
MD Stetson PC 116 1:48_fiberglass			
	0.208	0.0081	96.11
	0.1706	0.0067	96.07
	0.1572	0.0002	99.87
MD Stetson PC 120 1:64_ceramic			
	0.2177	0.0081	96.28
	0.2153	0.0072	96.66
	0.0632	0.0027	95.73
MD Stetson PC 120 1:64_chrome			
	0.1257	0.0036	97.14
	0.0475	0.0033	93.05
	0.1276	0.0036	97.18
MD Stetson PC 120 1:64_fiberglass			
	0.0492	0.004	91.87

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	0.0352	0	100
	0.1261	-0.0001	100.08
MD Stetson PC 120 1:128_ceramic			
	0.1288	0.0149	88.43
	0.2332	0.014	94
	0.1446	0.0072	95.02
MD Stetson PC 120 1:128_chrome			
	0.2079	0.0067	96.78
	0.0876	0.0053	93.95
	0.104	0.0058	94.42
MD Stetson PC 120 1:128_fiberglass			
	0.0798	0.0096	87.97
	0.0518	0.0038	92.66
	0.1884	-0.0008	100.42
MD Stetson PC 120 1:256_ceramic			
	0.1529	0.0242	84.17
	0.1974	0.0111	94.38
	0.1035	0.0203	80.39
MD Stetson PC 120 1:256_chrome			
	0.0881	0.0058	93.42
	0.0862	0.0067	92.23
	0.1995	0.005	97.49
MD Stetson PC 120 1:256_fiberglass			
	0.1887	0.0123	93.48
	0.3173	0.0228	92.81
	0.2013	0.0206	89.77
Comet Bathroom Cleaner_ceramic			
	0.201	0.0556	72.34
	0.2328	0.021	90.98
	0.148	0.0318	78.51
Comet Bathroom Cleaner_chrome			
	0.1449	0.0068	95.31
	0.2289	0.0052	97.73
	0.1407	0.0065	95.38
Comet Bathroom Cleaner_fiberglass			
	0.1327	0.0049	96.31
	0.2667	0.0019	99.29
	0.2525	0.003	98.81
Active Ion_ceramic			
	0.4209	0.014	96.67
	0.281	0.0122	95.66
	0.3985	0.0209	94.76
Active Ion_chrome			
	0.2677	0.0011	99.59
	0.146	0.0009	99.38
	0.2574	0.0003	99.88
Active Ion_fiberglass			
	0.2638	0.0011	99.58
	0.2302	0.0054	97.65
	0.2123	0.0047	97.79

Summary:

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

Company Name:	Product Name:	Conc.:	Efficiency:	Effective:	Observations:
Next-Gen Supply Group	PC 116 Non-acid restroom and shower cleaner	2	97.18	☑	
Next-Gen Supply Group	PC 120 Peroxide Mulitsurface Cleaner	1.6	96.44	☑	
Next-Gen Supply Group	PC 120 Peroxide Mulitsurface Cleaner	0.78	93.74	☑	
Next-Gen Supply Group	PC 120 Peroxide Mulitsurface Cleaner	0.39	90.90	☑	
Prestige Brands Inc	Comet Bathroom Cleaner	100	91.63	☑	
Activeion Cleaning Solutions LLC	Activeion Pro	100	97.89	☑	

Conclusion: The four supplied products all removed over 90% of the bathroom soil from the three substrates using manual cleaning. Three of the four products removed more than the traditional cleaning product.