CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	2010
DateRun:	07/20/2010
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 was used at the recommended concentration, 1.56% and the conventional product was used at 0.78%. Preweighed chrome, ceramic, porcelain 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.
Results:	The supplied product and the conventional product both removed over 85% of the bathroom soap scum soil from the surfaces using manual cleaning. The table lists the amount of soil added, the amount remaining and the efficiency for each coupon cleaned.

Cleaner	Initial wt	Final wt	% Removed
3M Bathroom RTU - Fiberglass			
	0.0690	0.0021	96.96
	0.1073	0.0157	85.37
	0.0842	0.0138	83.61
3M Bathroom RTU - Porcelin			
	0.0693	0.0016	97.69
	0.1253	0.0002	99.84
	0.1021	0.0042	95.89
3M Bathroom RTU - Ceramic			
	0.0901	0.0027	97.00
	0.0630	0.0014	97.78
	0.0770	0.0081	89.48
3M Bathroom RTU - Chrome			
	0.0623	0.0009	98.56
	0.0658	0.0006	99.09
	0.0668	0.0010	98.50
DFC- Fiberglass			
	0.0627	0.0042	93.30
	0.1367	0.0041	97.00
	0.0379	0.0050	86.81
DFC- Porcelin			
	0.0424	0.0006	98.58
	0.0658	0.0047	92.86
	0.0619	0.0063	89.82

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DFC- Ceramic			
	0.1011	0.0011	98.91
	0.1057	0.0014	98.68
	0.0820	0.0015	98.17
DFC- Chrome			
	0.0512	0.0013	97.46
	0.0496	0.0010	97.98
	0.0564	0.0004	99.29

Summary:

Substrates:	Ceramics, Fiberglass, Chrome, Porcelain				
Contaminants:	Films, Soaps				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
3M	Non-acid bathroom cleaner No 19	0.78	94.98	☑	
Chemspec	DFC 14000	1.6	95.74	☑	

Conclusion: The supplied product was found to remove as much soil as the conventional product using manual cleaning for 30 seconds.