CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	2014
DateRun:	03/27/2014
Experimenters:	Russell Curtis
ClientType:	Adhesive Manufacturer
ProjectNumber:	Project #1
Substrates:	Ceramics, Plastic, Chrome
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 (4.7Non-acid, 6.25% mild acid). 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 hand held 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 1 spray of cleaning solutions. Each coupon was sprayed 1 times with the same cleaning solution. The solution was allowed to penetrate for 30 seconds followed by cleaning in the SLW unit for 5 cycles (~6 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:

Cleaner	Initial wt	Final wt	% Removed
Jtech All Clean_Ceramic_Bathroom soil			
	0.23	0.02	90.00
	0.29	0.05	82.46
	0.32	0.11	67.63
Jtech All Clean_Plastic_Bathroom soil			
	0.20	0.01	93.26
	0.18	0.03	85.04
	0.30	0.06	79.53
Jtech All Clean_Chrome_Bathroom soil			
	0.22	0.04	80.48
	0.24	0.01	96.40
	0.25	0.01	95.69
Clean Environment_Ceramic_Bathroom soil			
	0.31	0.07	76.55
	0.24	0.12	47.72
	0.21	0.07	67.58
Clean Environment_Plastic_Bathroom soil			
	0.19	0.01	93.21
	0.15	0.02	87.07
	0.15	0.02	87.04
Clean Environment_Chrome_Bathroom soil			
	0.17	0.04	73.51
	0.21	0.07	67.60
	0.17	0.06	67.82
3M Bathroom #19_Ceramic_Bathroom soil			
	0.23	0.03	85.34
	0.19	0.04	77.12
	0.16	0.06	63.96
3M Bathroom #19_Plastic_Bathroom soil			
	0.18	0.07	62.56

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	0.16	0.03	82.00
	0.26	0.09	67.09
3M Bathroom #19_Chrome_Bathroom soil			
	0.17	0.03	82.39
	0.13	0.01	90.49
	0.17	0.02	88.32

Summary:

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Company Name:	Product Name:	Conc.:	Efficiency:	Effective:	Observations:
MassCor	JTech All Clean Bathroom	100	85.61	☑	
The Clean Environment Co	The Natural - Citric Acid Bathroom Cleaner	100	74.23	☐	
Fisher Scientific	Absolute Ethanol	0	0.00	☐	
3M	Non-acid bathroom cleaner No 19	100	77.70	☐	
Next-Gen Supply Group	PC 115 Mild Acid Disinfectant Restroom & Shower Cleaner	100	84.05	☑	

Conclusion: JTech showed the most consistent levels across the board for all surfaces cleaned, while Clean Environment showed the least cleaning.