CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2003

DateRun: 04/17/2003

Experimenters: Jason Marshall, Heidi Wilcox

ClientType: State Agency

ProjectNumber: Project #2

Substrates: Ceramics, Fiberglass, Chrome

PartType: Coupon

Contaminants: Films, Soaps

Cleaning Methods: Manual Wipe

Analytical Methods: Gravimetric, Photography

Purpose: To evaluate newly supplied cleaner on SSL Soil 1 on three substrates

Experimental Procedure: One supplied cleaning product was diluted to vendor recommended concentration for bathroom cleaning (9%). The product was diluted with DI water. Three preweighed fiberglass, three ceramic and three chrome coupons were coated with SSL Soil 1 (Bathroom soap scum: Vaseline Dry Skin Lotion 21.4%, Dial Clean Rinsing Body Wash 14.3%, Market Basket Shampoo & Conditioner (Pert) 28.6%, Soft Soap Natural Liquid hand soap 21.4%, Coast 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. Photographs were taken.

Three coupons were placed into a Gardner Straight Line Washability unit. A Professional Painter's Rag 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 cleaning unit was run 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 a second set of photographs were taken. Efficiencies were calculated and recorded.

Results: The cleaning solutions had little difficulty with SSL Soil 1 on all three substrates. The table below lists the amount of soil added and removed.

Table 1. Soil Removal

Substrate	Initial wt	Final wt	% Removed	Overall Ave
Fiberglass	0.2695	-0.0048	101.78	
	0.2892	-0.0047	101.63	
	0.2635	-0.0053	102.01	101.81
Chrome	0.1396	0.0012	99.14	
	0.1080	0.0019	98.24	
	0.0859	0.0019	97.79	98.39
Ceramic	0.1162	0.0001	99.91	
	0.0922	0.0000	100.00	
	0.0705	0.0000	100.00	99.97

Summary:

Substrates:	Ceramics, Fiberglass, Chrome				
Contaminants:	Films, Soaps				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
EnvirOx LLC	Grout Safe	9	100.81	☑	Fiberglass
EnvirOx LLC	Grout Safe	9	98.39	☑	Chrome
EnvirOx LLC	Grout Safe	9	99.97	☑	Ceramic

Conclusion: The overall efficiency for the bathroom cleaner, GroutSafe, was 100.06, passing the cut off of 85%. The glass cleaner will be tested next on SSL Soil 2.