CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2003

DateRun: 07/07/2003

Experimenters: Jason Marshall, Heidi Wilcox

ClientType: State Agency

ProjectNumber: Project #2

Substrates: Glass/Quartz, Chrome

PartType: Coupon

Contaminants: Soaps

Cleaning Methods: Manual Wipe

Analytical Methods: Gravimetric, Photography

Purpose: To reevaluate selected cleaners based on vendor requested concentration changes

Experimental Procedure: The supplied cleaning products were diluted to vendor recommended concentration for glass cleaning. The products were diluted with DI water. Six preweighed chrome and six glass coupons were coated with SSL Soil 2 (Glass soap scum: Colgate Regular shaving cream 5.3%, Arid Extra Extra Spray Deodorant 3.5%, Suave Naturals Flexible Hold hair spray 3.7%, Aleeda Texturizing hair gel 25.6% Colgate Total toothpaste 10.4%, Water 51.5%) by pump spraying the mix. The soil was 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 5 cycles (~9 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.

Clean Environment Co. The Natural Glass Cleaner - 25:1
MD Stetson 101 Neutral & Glass Cleaner - 512:1

Results: Both products were successful in removing the soil from the glass and chrome substrates. The table below lists the amount of soil applied and removed from the coupons.

Table 1. Soil Removal

Cleaner	Initial wt	Final wt	% Removed
CleanEnvGlass	0.0309	0.0028	90.94
	0.0496	0.0007	98.59
	0.0347	0.0005	98.56
CleanEnvChrome	0.0336	0.000	100.00
	0.0350	-0.0004	101.14
	0.0228	-0.0001	100.44
MDStetsonGlass	0.0370	-0.0006	101.62
	0.0436	-0.0002	100.46
	0.0368	0.0002	99.46
MDStetsonChrome	0.0413	0.0015	96.37
	0.0308	0.0010	96.75
	0.0181	0.0006	96.69

Summary:

Substrates:	Glass/Quartz, Chrome				
Contaminants:	Soaps				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
The Clean Environment Co	Glass and Hard Surface Cleaner	4	98.28	☑	Glass - 96.03; Chrome - 100.53
Next-Gen Supply Group	PC 101 Neutral and Glass Cleaner	0	98.56	☑	Glass - 100.51; Chrome - 96.6

Conclusion: Both products were successful at the specified dilution ratios for the glass soil on both substrates.