

# CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2008

DateRun: 04/17/2008

Experimenters: Shweta Bansal

ClientType: Cleaner Manufacturer

ProjectNumber: Project #1

Substrates: Glass/Quartz, Chrome

PartType: Coupon

Contaminants: Films, Soaps

Cleaning Methods: Manual Wipe

Analytical Methods: Gravimetric

Purpose: To evaluate two Do-It-Yourself formulation following kit instructions for glass cleaning

Experimental Procedure: The supplied cleaning product was used at the recommended concentrations. Two products were included for comparison and were used at the ready to use concentration.

Prewrite weighed chrome and glass coupons were coated with SSL Soil 2 (Glass soap scum: Water 51.5%, Hair gel 25.6%, Toothpaste 10.4%, Shaving cream 5.3%, Hair spray 3.7% and Spray deodorant 3.5%) 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 5 cycles (~10 seconds). At the end of the cleaning, coupons were wiped once with a dry paper towel. Final weights were recorded, and efficiencies recorded.

Results: Only the EZ Clean Green Soft Scrub cleaner had difficulty cleaning the glass soap scum. The coupons cleaned with this product left behind a lot of residue. The table lists the amount of soil added, the amount remaining and the efficiency for each coupon cleaned.

Cleaner	Initial wt	Final wt	% Removed
Clorox Green Works All Purpose	0.1042	0.0024	97.70
Glass	0.1315	0.0074	94.37
	0.0976	0.0076	92.21
	0.1007	0.0285	71.70
Chrome	0.1088	0.0240	77.94
	0.0683	0.0153	77.60
Clorox Green Works Glass & Surface	0.0783	0.0059	92.46
Glass	0.1183	0.0034	97.13
	0.1345	0.0028	97.92
	0.1021	0.0184	81.98
Chrome	0.0910	0.0147	83.85
	0.1186	0.0237	80.02
EZ Clean Green Vinegar Cleaning Spray	0.0774	0.0092	88.11
Glass	0.1338	0.0105	92.15
	0.1040	0.0092	91.15
	0.1303	0.0224	82.81
Chrome	0.1207	0.0154	87.24
	0.1072	0.0169	84.24
EZ Clean Green Soft Scrub	0.2001	0.6296	-214.64
Glass	0.1125	0.3528	-213.60
	0.1499	0.3346	-123.22
	0.0753	0.9709	-1189.38
Chrome	0.0754	0.6797	-801.46

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	0.0973	0.6621	-580.47
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Summary:

<b>Substrates:</b>		Glass/Quartz, Chrome				
<b>Contaminants:</b>		Films, Soaps				
<b>Company Name:</b>	<b>Product Name:</b>	<b>Conc.:</b>	<b>Efficiency:</b>	<b>Effective:</b>	<b>Observations:</b>	
Clorox Company	Green Works Multi-Surface Cleaner	100	85.28	<input checked="" type="checkbox"/>		
Clorox Company	Green Works Glass and Surface Cleaner	100	88.89	<input checked="" type="checkbox"/>		
EZ Clean Green	Natural Vinegar Cleaning Spray	100	87.62	<input checked="" type="checkbox"/>		
EZ Clean Green	Natural Soft Scrub	100	-520.46	<input type="checkbox"/>		

Conclusion:

The Soft Scrub did not perform well on the glass surface without any kind of water wiping. The other three products had overall average efficiencies over 85% and would be considered effective based on the SSL testing methodology.