CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	2011
DateRun:	08/25/2011
Experimenters:	Timothy Weil, Johnny Le
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 supplied products for glass cleaning using manual cleaning
Experimental Procedure:	Preweighed chrome and glass coupons were coated with glass soap scum 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 (~30 seconds). At the end of the cleaning, coupons were allowed to air dry for 24 hours and weighed for a final time. Efficiency was calculated for each coupon. Chemistries Evaluated: Clorox Natural Glass Cleaner; Windex;
Results:	Both the Clorox Glass Cleaner and Windex removed on average more than 96% of the glass soap scum. For glass surfaces, Clorox Glass Cleaner and Windex both removed on averaged above 98%. For chrome surfaces, Clorox Glass Cleaner removed over 99% of the soil and Windex removed over 96% of the soil.

Cleaner	Initial wt	Final wt	% Removed	%Average
Clorox Green Works Natural Glass Cleaner Glass				
	0.0858	0.001	98.83	98.54
	0.0705	0.0007	99.01	
	0.0538	0.0012	97.77	
Johnson & Johnson Windex Glass				
	0.0988	0.0025	97.47	98.17
	0.0525	0.0008	98.48	
	0.0556	0.0008	98.56	
Clorox Green Works Natural Glass Cleaner Chrome				
	0.0645	0.0002	99.69	99.06
	0.0829	0.001	98.79	
	0.0845	0.0011	98.70	
Johnson & Johnson Windex Chrome				
	0.0410	0.0024	94.15	96.82
	0.0835	0.0015	98.20	

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	0.0799	0.0015	98.12	

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Company Name:	Product Name:	Conc.:	Efficiency:	Effective:	Observations:
Clorox Company	Green Works Glass Cleaner Concentrate	100	98.80	☑	
SC Johnson & Son Inc	Windex Glass & More Cleaner (Spray)	100	97.50	☑	

Conclusion: