CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	2012
DateRun:	11/27/2012
Experimenters:	Nathalie Regis
ClientType:	Cleaner Manufacturer
ProjectNumber:	Project #1
Substrates:	Ceramics, Steel, Wood
PartType:	Coupon
Contaminants:	Greases, Oil, Food
Cleaning Methods:	Manual Wipe
Analytical Methods:	Gravimetric
Purpose:	To evaluate supplied floor cleaning products for ASTM D4488-95 or GS 37 standard to qualify for EPA DfE program
Experimental Procedure:	All of the supplied cleaning products were used at full strength at the request of the client. Ceramic, polyurethane coated wood, and powder coated aluminum coupons were pre-weighed for baseline weights then coated with DCC 17 - Greasy Soil mixture of melted, oily soils containing a small amount of carbon black using a handheld swab. The coupons were then allowed to dry for 24 hours at room temperature then reweighed to determine the amount of soil added. Twenty-seven coupons were prepared in total for this test. Three coupons of the same substrate were placed onto a Gardner Straight Line Washability unit. A Kimberly-Clark Wypall reinforced paper towel was attached to the cleaning sled and soaked with 5 sprays of cleaning solution. Each coupon was sprayed 3-5 times with the same cleaning solution. The cleaning unit was run for 20 cycles (~33 seconds). At the end of the cleaning, coupons were not rinsed and then allowed to dry for 24 hours, and final weights were recorded. Cleaning efficiencies were calculated and recorded for each cleaner.
Results:	All three products performed comparably to the selected industry standard products for removing greasy soil using manual wiping from ceramic and coated aluminum surfaces. Pledge Floor Care and Pledge MultiSurface removed less than 85% of the soil from wood surfaces. The table and graph below illustrate the substrates cleaned, the amount of soil added, the amount remaining and the efficiency for each coupon cleaned.

Cleaner	Initial wt	Final wt	% Removed	Substrate Average	Overall Product Average
Mohawk Wood Floor Cleaner - Ceramic					
	0.1461	0.0092	93.70	98.01	94.39
	0.2170	-0.0087	104.01		
	0.1444	0.0053	96.33		
Mohawk Wood Floor Cleaner - painted metal					
	0.2104	0.0147	93.01	95.27	
	0.3862	0.0105	97.28		
	0.2727	0.0122	95.53		
Mohawk Wood Floor Cleaner - wood					
	0.2321	0.0097	95.82	89.88	
	0.2107	0.0349	83.44		
	0.3863	0.0371	90.40		
Pledge Floor Care - Ceramic					
	0.1420	0.0093	93.45	98.24	90.82

CLEANING LABORATORY EVALUATION SUMMARY

	0.1173	0.0004	99.66		
	0.2744	-0.0044	101.60		
Pledge Floor Care - painted metal					
	0.2909	0.0102	96.49	96.65	
	0.3754	0.0095	97.47		
	0.2114	0.0085	95.98		
Pledge Floor Care - wood					
	0.1752	0.0642	63.36	77.59	
	0.2291	0.0510	77.74		
	0.2306	0.0192	91.67		
Pledge MultiSurface - Ceramic					
	0.2213	0.0080	96.38	96.71	91.93
	0.1800	0.0015	99.17		
	0.1937	0.0105	94.58		
Pledge MultiSurface - painted metal					
	0.1071	0.0071	93.37	95.05	
	0.1195	0.0046	96.15		
	0.1944	0.0085	95.63		
Pledge MultiSurface - wood					
	0.1649	0.0111	93.27	84.02	
	0.1950	0.0465	76.15		
	0.2085	0.0362	82.64		

Summary:

Conclusion: All three supplied products had overall average efficiencies greater than 85% and would be considered effective based on the SSL testing methodology.