CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	2014
DateRun:	07/20/2014
Experimenters:	Loc Nguyen, Jonathan Oljey
ClientType:	Cleaner Manufacturer
ProjectNumber:	Project #1
Substrates:	Ceramics, Fiberglass, Chrome
PartType:	Coupon
Contaminants:	Films, Soaps
Cleaning Methods:	Manual Wipe
Analytical Methods:	Gravimetric
Purpose:	To evaluate the supplied products for bathroom cleaning using manual cleaning
Experimental Procedure:	The supplied cleaning products were used at the recommended concentration (4.7Non-acid, 6.25% mild acid). Preweighed chrome, ceramic and fiberglass, coupons were coated with SSL Soil 1 (Bathroom soap scum: All-in-one shampoo and conditioner 28.6%, Dry skin lotion 21.4%, Liquid hand soap 21.4%, Liquid body wash 14.3%, Deodorant bar soap 7.2% and water 7.1%.) 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 2-3 sprays of cleaning solutions. Each coupon was sprayed 1-2 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 (~33 seconds). At the end of the cleaning, coupons were wiped once with a dry paper towel. Final weights were measaured, and efficiencies were calculated and recorded. ChemistriesEvaluated: Hydris Orange; Chlorox 409

Results:

Cleaner	Initial wt	Final wt	% Removed
Clorox bathroom_ceramic	0.2311	0.0816	64.69
Clorox bathroom_ceramic	0.2297	0.0681	70.35
Clorox bathroom_ceramic	0.2512	0.0612	75.64
Clorox bathroom_plastic	0.2548	0.0382	85.01
Clorox bathroom_plastic	0.2014	0.0376	81.33
Clorox bathroom_plastic	2.4116	2.0252	16.02
Clorox bathroom_chrome	0.2150	0.0585	72.79
Clorox bathroom_chrome	0.3496	0.0402	88.50
Clorox bathroom_chrome	0.2352	0.0453	80.74
hydris orange_ceramic	0.2229	0.0212	90.49
hydris orange_ceramic	0.2679	0.0329	87.72
hydris orange_ceramic	0.2126	0.0460	78.36
hydris orange_plastic	0.3344	0.0454	86.42
hydris orange_plastic	0.2429	0.0288	88.14

CLEANING LABORATORY EVALUATION SUMMARY

hydris orange_plastic	0.2364	0.0231	90.23
hydris orange_chrome	0.2527	0.0762	69.85
hydris orange_chrome	0.2168	0.0784	63.84
hydris orange_chrome	0.1823	0.0493	72.96

Summary:

Substrates:	Ceramics, Fiberglass, Chrome
Contaminants:	Films, Soaps

Company Name:	Product Name:	Conc.:	Efficiency:	Effective:	Observations:
EcoLab	Hydris Orange	100	80.89	☑	
Clorox Company	Formula 409 All Purpose Cleaner	100	70.57	☐	

Conclusion:

The Hydris formulation supplied in the orange labeled bottle worked more efficiently than Clorox on average across the board. The only area where Clorox outperformed was with chrome coupons.