CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	2015
DateRun:	08/05/2015
Experimenters:	Loc Nguyen, Luis Raudales
ClientType:	Cleaner Manufacturer
ProjectNumber:	Project #9
Substrates:	Ceramics, Plastic, Steel
PartType:	Coupon
Contaminants:	Greases, Food
Cleaning Methods:	Manual Wipe
Analytical Methods:	Gravimetric
Purpose:	To evaluate supplied products for all purpose cleaning using manual cleaning.
Experimental Procedure:	Soil Preparation: A mixture of three cooking oils/greases was made. A melt blend of 33% vegetable shortening, 33% lard, 33% vegetable oil and 1% carbon lampblack was made up fresh for the testing. Preweighed ceramic, painted steel and plastic coupons were coated with DCC17 soil using a hand held swab and were 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 1 spray of cleaner. Each coupon was sprayed with 1 spray of cleaner. The solution was allowed to penetrate for 30 seconds followed by cleaning in the SLW unit for 20 cycles (~30 seconds). An additional wipe cycle was done with one spray of water on each coupon and new Wypall for rinsing purposes. Coupons were let to dry 24 hours before reweighting and efficiency was calculated. Cleaners Evaluated: Bab-O Gel with Bleach and Soft Scrub gel with bleach.

Results:

Cleaner	Surface	Initial Wt	Final Wt	% Removal	average % removal
Bab-O Gel	ceramic	0.4944	0.4791	96.91%	
Bab-O Gel	ceramic	0.4466	0.4373	97.92%	
Bab-O Gel	ceramic	0.6321	0.6029	95.38%	96.74
Bab-O Gel	plastic	0.4814	0.479	99.50%	
Bab-O Gel	plastic	0.3291	0.3207	97.45%	
Bab-O Gel	plastic	0.7702	0.7615	98.87%	98.61
Bab-O Gel	Paint steel	0.2045	0.1945	95.11%	
Bab-O Gel	Paint steel	0.4072	0.3984	97.84%	
Bab-O Gel	Paint steel	0.3335	0.3198	95.89%	96.28
Soft Scrub Gel	ceramic	0.8218	0.7658	93.19%	
Soft Scrub Gel	ceramic	1.2087	1.1566	95.69%	
Soft Scrub Gel	ceramic	1.0034	0.9591	95.59%	94.82
Soft Scrub Gel	plastic	0.8768	0.7604	86.72%	
Soft Scrub Gel	plastic	0.9032	0.8605	95.27%	

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Soft Scrub Gel	plastic	1.0963	1.0514	95.90%	92.63
Soft Scrub Gel	Paint steel	1.0016	0.9075	90.61%	
Soft Scrub Gel	Paint steel	0.9592	0.9192	95.83%	
Soft Scrub Gel	Paint steel	1.0728	1.0007	93.28%	93.24

Summary

Product Name	Concentration	Efficiency	Effective
Bab-O Cleaning Gel with Bleach	100	96.74	Yes
Soft Scrub With Bleach, Gel	100	92.94	Yes

Summary:

Substrates:	Ceramics, Plastic, Steel				
Contaminants:	Greases, Food				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Purex Ind. (Bab-o)	Cleaning Gel With Bleach	100	96.74	☑	
Henkel Corporation	Soft Scrub with Bleach	100	92.94	☑	

Conclusion:

Bab-O with bleach presented the higher effectiveness on the three different substrates at an average removal efficiency of 96.74% compared to 92.94% removal using Soft Scrub with bleach. No micro residuals were left after the cleaning process for Soft Scrub cleaner. Bab-O cleaner left some spot residuals in the coupons after cleaning.