CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	2016
DateRun:	11/28/2016
Experimenters:	Alicia McCarthy, Josephine Garfield
ClientType:	Cleaner Manufacturer
ProjectNumber:	Project #9
Substrates:	Aluminum, Ceramics, Plastic
PartType:	Coupon
Contaminants:	Films, Soaps
Cleaning Methods:	Manual Wipe
Analytical Methods:	Gravimetric
Purpose:	To evaluate how efficiently the soil is removed using the Mineral Shock products compared to Lysol Power Bathroom Cleaner.
Experimental Procedure:	Nine ceramic coupons, nine plastic coupons, and nine chrome plated aluminum coupons were weighed to get their initial weights. Then they were separated into threes for each cleaner that would be tested. Then half a gram of bathroom soil was applied to each coupon, and the soil was allowed to dry for twenty-four hours. The dirty weights were then taken. Then the ceramic coupons for the first cleaner were placed in the abrasion testing machine for 30 seconds. The process was then repeated for the plastic and chrome plated aluminum coupons. Then the same process was done for the second and third cleaners. The coupons were then allowed to dry fully, and the final weights were taken.
Results:	Below are the results of the experiment. Cleaner 1 indicates Mineral Shock 1125 G, cleaner 2 indicates Mineral Shock 1124 G, and cleaner 3 indicates the Lysol Power Bathroom Cleaner. Substrate A indicates the ceramic, B indicates the plastic, and C indicates the chrome plated aluminum.

Cleaner	Sub	Initial wt	Final wt	% Removed
1	A	0.2348	0.0602	74.36
1	A	0.2318	0.0469	79.77
1	A	0.2296	0.0812	64.63
1	B	0.2395	0.0315	86.85
1	B	0.2281	0.0334	85.36
1	B	0.3016	0.0424	85.94
1	C	0.2272	0.0416	81.69
1	C	0.2330	0.0404	82.66
1	C	0.2289	0.0437	80.91
2	A	0.2240	0.0819	63.44
2	A	0.2415	0.0713	70.48
2	A	0.2258	0.0785	65.23
2	B	0.2108	0.0170	91.94
2	B	0.2175	0.0317	85.43
2	B	0.2116	0.0442	79.11
2	C	0.2455	0.0659	73.16
2	C	0.2284	0.1312	42.56
2	C	0.2314	0.1203	48.01
3	A	0.2370	0.0451	80.97
3	A	0.2306	0.0506	78.06
3	A	0.2181	0.0140	93.58
3	B	0.2226	0.0212	90.48
3	B	0.2207	0.0545	75.31
3	B	0.2210	0.0206	90.68
3	C	0.2283	0.0559	75.51
3	C	0.2290	0.0501	78.12
3	C	0.2315	0.0516	77.71

Summary:

Substrates:	Aluminum, Ceramics, Plastic				
Contaminants:	Films, Soaps				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**

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EnvirOx LLC	Mineral Shock 1125 G	100	80.23	☑	
EnvirOx LLC	Mineral Shock 1124 G	100	68.81	☐	
Reckitt Benckiser	Lysol Bathroom Cleaner	100	82.27	☑	

Conclusion: The results of the experiment showed that the Mineral Shock 1125G, and Lysol Power Cleaners were comparative to each other. The 1124 G had a lower overall average.