CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2021

DateRun: 02/15/2021

Experimenters: Ross Goding, Nicole Kebler, Edward Judge

ClientType: Cleaner Manufacturer

ProjectNumber: Project #2

Substrates: Glass/Quartz, Chrome

PartType: Coupon

Contaminants: Dirt

Cleaning Methods: Manual Wipe

Analytical Methods: Gravimetric

Purpose: The purpose of this project is to test the removal of AATCC carpet soil from the given substrates.

Experimental Procedure: A total of 18 coupons were obtained and used for this test. Six coupons were used for each of the three cleaners. Nine coupons in total for each substrate, substrates being glass and chrome plated aluminum. The initial weights of the tiles were taken in order to use it as a standard and also determine how much soil was removed after cleaning. The coupons were then soiled with 1 gram of AATCC Carpet soil and baked in an oven at 75 degrees Celsius for four hours. These coupons were then removed after the 4 hours and dried overnight. Dried dirty weights were then recorded. The specified cleaners were then used to test cleaning effectiveness on the chrome plated aluminum surface and the glass surface. Each set of 3 coupons (per substrate) were placed in the SLW machine and washed. Two sprays of cleaner were applied to the Wypal and two sprays of cleaner was applied to each dirty coupon. The SLW cleaned for 20 swipes (down and back is 1) before removed the set and moving onto the next set of coupons. After all coupons were cleaned with their respective cleaners, they air dried for an hour before final weights were taken and recorded. Effectiveness of the cleaners was then calculated and recorded.

substrate 1 = glass

substrate 2 = chrome plated aluminum

Results:

Cleaner	Substrate	Fnitial wt. of cont.	Final wt. of cont.	% Removed	Average % Removed	Overall % removal
A	1	0.3710	0.0189	94.91	93.45	93.72
		0.7143	0.0183	97.44		
		0.4442	0.0533	88.00		
	2	0.4895	0.0225	95.40	93.99	
		0.4391	0.0312	92.89		
		0.3574	0.0226	93.68		
B	1	1.0332	0.0156	98.49	97.90	95.23
		1.0106	0.0170	98.32		
		0.9402	0.0291	96.90		
	2	0.3625	0.0216	94.04	92.56	
		0.6734	0.0288	95.72		
		0.2295	0.0277	87.93		
C	1	0.9022	0.0191	97.88	97.80	96.29
		0.9946	0.0233	97.66		
		0.9110	0.0194	97.87		
	2	0.7670	0.0244	96.82	94.78	
		0.3105	0.0200	93.56		
		0.5206	0.0315	93.95		

Summary:

Substrates:	Glass/Quartz, Chrome
Contaminants:	Dirt

Company Name:	Product Name:	Conc.:	Efficiency:	Effective:	Observations:
Sustainable Tech LLC	SAAFH Window and Solar	100	93.72	☑	
SC Johnson & Son Inc	Windex Glass Original w/ Ammonia-D	100	95.23	☑	
Supreme Chemicals of Georgia	Krud Kutter Window Wash	100	96.29	☑	

Conclusion:

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Out of the 3 cleaners tested, cleaner C (1% Krud Kutter window wash) had the highest removal rate. The average overall removal rate from this product was 96% with its best surface removal being on glass. All products had a better removal rate on the glass surface. Overall, every product had a high removal rating. Cleaner A (SAAFH window and solar) had a 94% removal rating and cleaner B (Windex) had a 95% removal rating. The most satisfactory cleaner that was tested is 1% Krud Kutter Window Wash.