CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	2021
DateRun:	02/09/2021
Experimenters:	Edward Judge
ClientType:	Cleaner Manufacturer
ProjectNumber:	Project #1
Substrates:	Aluminum, Glass/Quartz, Plastic
PartType:	Coupon
Contaminants:	Dirt
Cleaning Methods:	Manual Wipe
Analytical Methods:	Gravimetric, Visual
Purpose:	To test the efficiency of SAAFH Device Cleaner in the removal of soil from various substrates
Experimental Procedure:	Aluminum, glass, and plastic coupons were gathered and designated for the two cleaners being tested. Initial weights of the coupons were measured. The carpet soil solution was made using 5 grams of carpet soil mix and 45 grams of mineral oil. 1 gram of this mixture was spread onto each coupon using a swab. Coupons were left to air dry for 1 hour. After the 1 hour, coupons were weighed again to record their contaminated weights. Coupons were then loaded into the gravimetric manual wiping machine 3 at a time. Three of the same substrate were loaded with the first cleaner applied to the cloth wipe in an amount of 2 sprays. This was repeated for the next 2 substrates. This process was then repeated with the second comparison cleaner. Once all coupons had been cleaned, final weights were taken and recorded for each coupon.

Results:

Cleaner	Substrate	Initial wt	Final wt	% Removed	% AVG	% Overall
Sustainable Tech (SAAFH) Device Cleaner	Aluminum	0.6593	0.0721	89.06	90.66	92.15
		0.7183	0.0690	90.39		
		0.7102	0.0531	92.52		
	Glass	0.7070	0.0421	94.05	94.27	
		0.7774	0.0491	93.68		
		0.7740	0.0380	95.09		
	Plastic	0.6512	0.0614	90.57	91.51	
		0.7320	0.0541	92.61		
		0.8427	0.0729	91.35		
Ultracruz Animal Care Isopropyl Alcohol	Aluminum	0.7606	0.0771	89.86	88.65	90.58
		0.7043	0.0794	88.73		
		0.7165	0.0906	87.36		
	Glass	0.6873	0.0871	87.33	91.35	
		0.8102	0.0558	93.11		
		0.6316	0.0404	93.60		
	Plastic	0.9228	0.0805	91.28	91.74	
		1.0182	0.0794	92.20		
		0.8535	0.0705	91.74		

Summary:

Substrates:	Aluminum, Glass/Quartz, Plastic				
Contaminants:	Dirt				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Sustainable Tech LLC	SAAFH Device Cleaner	100	92.15	☑	
Fisher Scientific	Isopropanol (CAS:67-63-0)	100	90.58	☑	

Conclusion:

SAAFH Device Cleaner appeared to be more efficient in cleaning contamination off of the substrates than the isopropyl alcohol that it was being compared to in the experiment. SAAFH had a slightly higher overall percentage of cleaning and had higher average percentages on aluminum and glass coupons. Isopropyl alcohol had a slightly higher average percentage on plastic, but not by much. The two products had very similar values with regard to cleaning efficiency, but overall SAAFH cleaned more efficiently than isopropyl alcohol.