CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	2016
DateRun:	10/16/2016
Experimenters:	George Liang, John Truong, Sabrina Apel
ClientType:	Cleaning Equipment Mfr
ProjectNumber:	Project #1
Substrates:	Ceramics, Plastic, Stainless Steel, White Board
PartType:	Coupon
Contaminants:	Hucker's Soil
Cleaning Methods:	Manual Wipe
Analytical Methods:	Gravimetric
Purpose:	To evaluate three supplied cleaning products for Hucker’s soil removal from various surfaces.
Experimental Procedure:	Three cleaners (Catholyte NaOH, Anolyte Hypochlorous, and 409 All Purpose Cleaner) were received “Ready to Use” (RTU). Pre-weighed coupons (three ceramic, three painted steel, three stainless steel, three plastic) were coated with one gram of Hucker’s soil, at room temperature, using a hand held swab. The contaminated coupons were air dried for 2 hours at room temperature and weighed again to determine the amount of soil added. Three coupons of each substrate were placed in the SLW unit and a KC Wypal reinforced paper towel was attached to the cleaning sled and treated with two sprays of cleaning solution. Each coupon was sprayed twice with the same cleaning solution. The cleaning unit was run for 20 cycles (equivalent of 30 seconds of cleaning). Coupons were dried and final weights were recorded. Efficiencies were calculated and recorded.
Results:	The three supplied products on average removed over 93% of the Hucker’s soil on each substrate using the manual wipe unit.

Substrate				
Cleaner	Initial wt	Final wt	% Removed	% Average
Ceramic				
Catholyte	0.2477	0.0126	94.91	93.54
	0.2520	0.0184	92.70	
	0.2998	0.0210	93.00	
Anolyte				
	0.2755	0.0199	92.78	93.09
	0.2761	0.0188	93.19	
	0.2716	0.0182	93.30	
409 All Purpose Cleaner				
	0.2597	0.0314	87.91	87.54
	0.3029	0.0438	85.54	
	0.2827	0.0306	89.18	
Painted Steel				
Catholyte				
	0.3053	0.0124	95.94	96.18
	0.3032	0.0101	96.67	
	0.3130	0.0127	95.94	
Anolyte				
	0.3019	0.0110	96.36	96.43
	0.3019	0.0117	96.12	
	0.3100	0.0099	96.81	
409 All Purpose Cleaner				
	0.3077	0.0184	94.02	95.07
	0.3131	0.0105	96.65	
	0.3092	0.0169	94.53	

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Stainless Steel				
Catholyte				
	0.2921	0.0301	89.70	88.62
	0.3197	0.0551	82.77	
	0.2832	0.0187	93.40	
Anolyte				
	0.3017	0.0109	96.39	96.81
	0.2884	0.0080	97.23	
	0.2903	0.0092	96.83	
409 All Purpose Cleaner				
	0.2932	0.0223	92.39	94.51
	0.2846	0.0103	96.38	
	0.2975	0.0156	94.76	
Plastic				
Catholyte				
	0.2871	0.0066	97.70	97.69
	0.3008	0.0078	97.41	
	0.3183	0.0065	97.96	
Anolyte				
	0.3051	0.0065	97.87	97.02
	0.3213	0.0130	95.95	
	0.3045	0.0084	97.24	
409 All Purpose Cleaner				
	0.3406	0.0067	98.03	98.20
	0.3757	0.0108	97.13	
	0.3232	0.0018	99.44	

Summary:

Substrates:	Ceramics, Plastic, Stainless Steel, White Board				
Contaminants:	Hucker's Soil				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Annihilare	Free (Catholyte)	100	94.01	☑	
Annihilare	Annihilyte General Purpose Cleaner	100	95.84	☑	
Clorox Company	Formula 409 All Purpose Cleaner	100	93.83	☑	

Conclusion:

The three supplied products on average removed over 93% of the Hucker’s soil on each substrate using the manual wipe unit.