CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	2016
DateRun:	10/16/2016
Experimenters:	John Truong, Sabrina Apel
ClientType:	Cleaning Equipment Mfr
ProjectNumber:	Project #1
Substrates:	Plastic, White Board
PartType:	Coupon
Contaminants:	Greases, Oil, Food
Cleaning Methods:	Manual Wipe
Analytical Methods:	Gravimetric
Purpose:	To evaluate three supplied cleaning products for DCC-17 removal from plastic and painted steel surfaces.
Experimental Procedure:	Three cleaners, Catholyte NaOH, Anolyte Hypochlorous, and 409 All Purpose Cleaner, were received “Ready to Use” (RTU). Pre-weighed coupons (three plastic, three painted steel) per cleaner were coated with one half gram of DCC-17, at room temperature, using a hand held swab. The contaminated coupons were air dried for 24 hours at room temperature and weighed again to determine the amount of soil added the following day. 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 removed over 90% of the DCC-17 on each substrate using the manual wipe unit.

Substrate				
Cleaner	Initial wt	Final wt	% Removed	% Average
Plastic				
Catholyte				
	0.4956	0.0397	91.99	92.31
	0.5056	0.0338	93.31	
	0.5052	0.0423	91.63	
Anolyte				
	0.5109	0.0585	88.55	90.04
	0.5058	0.0501	90.09	
	0.5114	0.0436	91.47	
409 All Purpose Cleaner				
	0.4844	0.0317	93.46	93.81
	0.5063	0.0327	93.54	
	0.5128	0.0285	94.44	
Painted Steel				
Catholyte				
	0.4900	0.0320	93.47	93.06
	0.5190	0.0372	92.83	
	0.4812	0.0342	92.89	
Anolyte				
	0.4997	0.0328	93.44	92.99
	0.5107	0.0405	92.07	
	0.5070	0.0331	93.47	
409 All Purpose Cleaner				
	0.5042	0.0283	94.39	94.44

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	0.5003	0.0368	92.64	
	0.5187	0.0193	96.28	

Summary:

Substrates:	Plastic, White Board				
Contaminants:	Greases, Oil, Food				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Fisher Scientific	Absolute Ethanol	100	0.00	☐	
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Clorox Company	Formula 409 All Purpose Cleaner	100	94.13	☑	
Annihilare	Free (Catholyte)	100	91.52	☑	
Annihilare	Annihilyte General Purpose Cleaner	100	92.69	☑	

Conclusion: Free Catholyte NaOH, Anolyte Hypochlorous General Purpose, and 409 All Purpose Cleaner efficiently removed DCC-17 on ceramic and chrome using the Manual SLW Unit.