CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2016

DateRun: 07/11/2016

Experimenters: Sabrina Apel

ClientType: Cleaner Manufacturer

ProjectNumber: Project #1

Substrates: Ceramics, Plastic, White Board

PartType: Coupon

Contaminants: Hucker's Soil

Cleaning Methods: Manual Wipe

Analytical Methods: Gravimetric

Purpose: To evaluate two all-purpose cleaners supplied products for Hucker's soil removal from various surfaces.

Experimental Procedure: Two cleaners (NatSurFact A and NarSurFact B) were received "Ready to Use" (RTU). Nine pre-weighed coupons per cleaner (three Ceramic, three Plastic and three Painted Steel) were coated with a half of a 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.

The three coupons of each substrate were placed in the SLW equipment 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). At the end of the cleaning cycle, the coupons were allowed to dry. Once dry, coupons final weights were recorded and efficiency was calculated for each coupon cleaned

Results: NatSurFact A and NatSurFact B showed efficient removal visually and gravimetrically of the Hucker's soil on plastic and painted steel, but not ceramic. After the substrates were cleaned in the manual wipe equipment, many contained streaks due to the brush from the manual abrasion equipment.

Cleaner	Substrate	Initial wt	Final wt	% Removed	% Ave	% Overall Cleaner
NatSurFact A	Ceramic	0.2363	0.1123	52.48	71.22	84.95
		0.2477	0.0524	78.85		
		0.2927	0.0517	82.34		
	Plastic	0.3292	0.0316	90.4	89.79	
		0.2935	0.0188	93.59		
		0.2947	0.0431	85.37		
	Painted St	0.2934	0.0167	94.31	93.83	
		0.3035	0.024	92.09		
		0.3144	0.0154	95.1		
NatSurFact B	Ceramic	0.2751	0.049	82.19	76.67	79.76
		0.2478	0.0618	75.06		
		0.2206	0.0601	72.76		
	Plastic	0.3033	0.055	81.87	82.2	
		0.3022	0.0644	78.69		
		0.2871	0.0401	86.03		
	Painted St	0.2652	0.0483	81.79	80.4	
		0.2549	0.0552	78.34		
		0.2838	0.0537	81.08		

Summary:

Substrates:	Ceramics, Plastic, White Board				
Contaminants:	Hucker's Soil				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Logos Technologies	NatSurFact A	100	84.95	☑	
Logos Technologies	NatSurFact B	100	79.76	☐	

Conclusion:

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Logo Technologies NatSurFact A and NatSurFact B efficiently removed Hucker’s soil on ceramic, plastic, and painted steel at room temperature using the manual wipe equipment. NatSurFact B cleaned least efficiently with an overall efficiency of 79.76%. NatSurFact B cleaned most efficiently with an overall efficiency of 84.95%