CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 25

DateRun: 12/17/2024

Experimenters: Tatyanna Moreland Junior, Cindy McClaughlin

ClientType: Cleaner Manufacturer

ProjectNumber: Project #1

Substrates: Ceramics, Plastic, Stainless Steel

PartType: Coupon

Contaminants: DCC-17

Cleaning Methods: Manual Wipe

Analytical Methods: Gravimetric

Purpose: To test the efficacy of MPlus Degreaser against a comparative degreasing product, 7th Generation All Purpose, at removing DCC-17 grease from ceramic, plastic, and stainless steel.

Experimental Procedure: Nine pre-weighed coupons per cleaner (three ceramic, three plastic, and three stainless steel) were soiled with 0.25 grams of DCC-17 grease soil using a handheld swab and air-dried for 24 hours at room temperature (68°F). The contaminated coupons were weighed after air drying to determine the contaminated (cont.) weight. Three coupons of the same substrate were placed onto the Straight Line Washing (SLW) Unit with Wypall X60 attached to the cleaning sled. The Wypall X60 reinforced wipe and each coupon on the SLW unit were treated with three sprays each before running the SLW unit for 20 cycles (30 seconds). At the end of the cleaning cycle, the coupons were air-dried overnight before the final weights were recorded.

Results:

Cleaner	Substrate	Initial wt. of cont.	Final wt. of cont.	% Cont. Removed	Average % Removal	Overall Cleaner Average % Removal
MPlus Degreaser	Ceramic	0.2774	0.0074	97.33	98.21	96.74
		0.2037	0.0017	99.17		
		0.1383	0.0026	98.12		
	Plastic	0.2603	0.0117	95.51	95.13	
		0.1231	0.0111	90.98		
		0.2377	0.0026	98.91		
	Stainless Steel	0.3082	0.0117	96.20	96.87	
		0.2737	0.0060	97.81		
		0.2563	0.0087	96.61		
7th Generation All Purpose	Ceramic	0.1279	0.0001	99.92	99.97	98.65
		0.3077	0.0000	100.00		
		0.1837	0.0000	100.00		
	Plastic	0.1623	0.0054	96.67	98.53	
		0.1773	0.0001	99.94		
		0.1873	0.0019	98.99		
	Stainless Steel	0.2044	0.0004	99.80	97.43	
		0.0792	0.0045	94.32		
		0.1796	0.0033	98.16		

Summary:

Substrates:	Ceramics, Plastic, Stainless Steel				
Contaminants:	DCC-17				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
M Plus Inc	MPlus Degreaser	100%	96.74	☑	
Seventh Generation	All-Purpose Natural Cleaner	100%	98.65	☑	

Conclusion: MPlus Degreaser and 7th Generation All Purpose Cleaner were both effective in removing grease (DCC-17) from ceramic, plastic, and stainless steel.