CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2017

DateRun: 10/02/2017

Experimenters: Vinh Tran, Sabrina Apel, Hayley Byra

ClientType:

ProjectNumber: Project #1

Substrates: Aluminum, Ceramics, Plastic

PartType: Coupon

Contaminants: Greases

Cleaning Methods: Manual Wipe

Analytical Methods: Gravimetric

Purpose: To evaluate the effectiveness of the supplied cleaners with removing Lithium White Grease soil from aluminum, ceramic, and polycarbonate surfaces.

Experimental Procedure: Three sets of pre-weighed aluminum, ceramic, and polycarbonate coupons were soiled with a half a gram of Lithium White Grease using a hand held swab. Contaminated weights were taken and then three of the same type of coupons were immediately placed into a Gardner Straight Line Washability unit. A Wypall X60 reinforced wipe was attached to the cleaning sled and soaked with one spray of desired cleaning solutions. Each coupon was sprayed once with the same cleaning solution. All cleaning solutions were diluted to the recommended percentages. The solution was then allowed to penetrate for 30 seconds followed by cleaning in the SLW unit for 20 cycles.

Results:

Cleaner	Coupon Type	Initial wt of cont.	Final wt of cont.	%Cont Removed	Avg. Cont. Removed (%)	Overall Cont. Removed (%)
Pak it Vehicle Wash	Aluminum	0.5002	0.1704	65.93	62.4	65.5
		0.4871	0.2379	51.16		
		0.5061	0.1514	70.08		
	Ceramic	0.5164	0.1414	72.62	72.2	
		0.5065	0.0692	86.34		
		0.4891	0.2076	57.55		
	Polycarbonate	0.5680	0.1571	72.34	62.0	
		0.4868	0.1330	72.68		
		0.4931	0.2905	41.09		
Gunk Car & Truck Wash	Aluminum	0.4906	0.1263	74.26	65.6	65.6
		0.4651	0.1893	59.30		
		0.4963	0.1827	63.19		
	Ceramic	0.4941	0.1408	71.50	67.9	
		0.5098	0.2498	51.00		
		0.5008	0.0939	81.25		
	Polycarbonate	0.4891	0.2417	50.58	63.4	
		0.5133	0.1647	67.91		
		0.4822	0.1363	71.73		
West Marine Heavy Duty Boat Wash	Aluminum	0.5028	0.1753	65.14	65.2	67.5
		0.4949	0.1603	67.61		
		0.5043	0.1877	62.78		
	Ceramic	0.4942	0.0620	87.45	74.0	
		0.5102	0.1760	65.50		
		0.5165	0.1604	68.94		
	Polycarbonate	0.4977	0.1639	67.07	63.4	
		0.4851	0.1561	67.82		
		0.5121	0.2292	55.24		

Summary:

Conclusion: The supplied product worked as well as the comparative products from removing lithium grease using manual wiping.