CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	2018
DateRun:	12/31/1969
Experimenters:	Sabrina Apel, Ted Kearney
ClientType:	Cleaner Manufacturer
ProjectNumber:	Project #1
Substrates:	Painted metal
PartType:	Part
Contaminants:	Dirt
Cleaning Methods:	Manual Wipe
Analytical Methods:	Gravimetric, Visual
Purpose:	To evaluate the effectiveness of the Alpha Chemical Sample C formula against the Alpha Chemical Sample G formula and the Alpha Chemical Sample M formula on the removal of vehicle dirt.
Experimental Procedure:	All painted steel coupons were pre-weighed and had about one half gram of Vehicle Dirt soil (45% Lithium grease, 39% motor oil, and 16% bike dirt) were distributed onto each coupon. Three painted steel coupons were cleaned by each of the three different Alpha Chemical formulations. The dirty weights were recorded; three coupons of the same substrate were aligned into a Single Line Washing Unit (SLW) with Wypall X60 attached to each cleaning sled. The Wypall X60 reinforced wipe along with the coupons were all sprayed three times with the cleaner and then allowed to soak for 30 seconds. Afterwards the Single Line Washing Unit (SLW) was activated and cleaned for 20 cycles. The clean coupons were then allowed to dry at room temperature before the final weights were recorded. This process was repeated 5 more times for every set of coupons with its respected cleaner, with all the data and observations recorded.

Results:

Cleaner	Substrate	Intial wt. of cont. (g)	Final wt. of cont. (g)	% Cont Removed	Average % Cont Removed Per Trial	Overall Average % Content Removed
Alpha Chemical Sample C Formulation	Painted Steel	0.5102	0.0134	97.37357899	100.20	99.91
		0.5002	-0.0157	103.1387445		
		0.5054	-0.0005	100.0989315		
		0.5269	0.0142	97.30499146	98.31	
		0.4669	0.0035	99.25037481		
		0.5831	0.0095	98.37077688		
		0.4788	-0.0006	100.1253133	99.86	
		0.5974	0.0074	98.76129896		
		0.5403	-0.0037	100.6848047		
		0.5058	-0.0042	100.8303677	99.84	
		0.5389	-0.0064	101.1876044		
		0.5607	0.0140	97.5031211		
		0.4933	-0.0017	100.3446179	100.74	
		0.5442	0.0011	99.79786843		
		0.5898	-0.0122	102.0684978		
		0.4923	0.0030	99.39061548	100.49	
		0.5056	-0.0054	101.068038		
		0.5309	-0.0054	101.0171407		
Alpha Chemical Sample G Formulation	Painted Steel	0.5068	0.0227	95.52091555	96.53	99.60
		0.5055	0.0154	96.95351137		
		0.5075	0.0147	97.10344828		
		0.5390	0.0041	99.2393321	99.12	
		0.5986	0.0056	99.0644838		
		0.5565	0.0053	99.04761905		
		0.5366	-0.0045	100.8386135	100.74	
		0.5045	-0.0013	100.2576809		
		0.5925	-0.0066	101.1139241		
		0.6470	0.0033	99.48995363	100.98	

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		0.4917	-0.0016	100.3254017		
		0.5901	-0.0184	103.1181156		
		0.4908	-0.0003	100.0611247	99.87	
		0.4930	0.0007	99.85801217		
		0.5381	0.0016	99.7026575		
		0.4818	-0.0014	100.290577	100.37	
		0.5847	-0.0002	100.0342056		
		0.5765	-0.0045	100.7805724		
Alpha Chemical Sample M Formulation	Painted Steel	0.5042	0.0197	96.09282031	97.38	99.61
		0.5010	0.0094	98.1237525		
		0.5039	0.0105	97.91625322		
		0.5121	0.0106	97.93009178	99.07	
		0.5462	0.0028	99.48736726		
		0.5084	0.0011	99.78363493		
		0.5306	-0.0134	102.5254429	100.36	
		0.5193	0.0032	99.38378587		
		0.5512	0.0046	99.16545718		
		0.5310	0.0001	99.98116761	99.78	
		0.5720	0.0009	99.84265734		
		0.5384	0.0026	99.51708767		
		0.5584	-0.0040	100.7163324	100.32	
		0.4866	-0.0004	100.082203		
		0.5026	-0.0008	100.1591723		
		0.5892	-0.0012	100.203666	100.76	
		0.5864	-0.0011	100.1875853		
		0.5737	-0.0108	101.882517		

Summary:

Substrates:	Painted metal
Contaminants:	Dirt

Company Name:	Product Name:	Conc.:	Efficiency:	Effective:	Observations:
Alpha Chemical Services	Sample C Formulation	100	99.91	☑	
Alpha Chemical Services	Sample G Formulation	100	99.60	☑	
Alpha Chemical Services	Sample M Formulation	100	99.61	☑	

Conclusion: All three formulations were effective on removing the vehicle dirt from painted steel.