

CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	2021																																												
DateRun:	08/16/2021																																												
Experimenters:	Ross Goding, Edward Judge, Anjali Bhagat																																												
ClientType:	Lab																																												
ProjectNumber:	Project #4																																												
Substrates:	Ceramics, Plastic, Painted metal																																												
PartType:	Coupon																																												
Contaminants:	Hucker's Soil																																												
Cleaning Methods:	Manual Wipe																																												
Analytical Methods:	Gravimetric, Visual																																												
Purpose:	To test the effectiveness of Fantastik All Purpose Cleaner in the removal of Hucker's Soil from various substrates.																																												
Experimental Procedure:	A Fantastik All Purpose Cleaner solution was gathered to begin testing. Then, 3 coupons of each substrate (ceramic, plastic, painted metal) were collected and initial weights were taken. Hucker's Soil (Creamy Peanut Butter, Salted Butter, Wheat gluten, Egg Yolk, Evaporated milk, DI water, Printer's ink with boiled linseed oil, India Ink, Saline Solution) was applied to each coupon and allowed to air dry for 2 hours. After the 2 hour dry time, the weights of the newly contaminated coupons were measured. All coupons were placed into a Gardner-scrub Abrasion Tester machine. Wypall cleaning cloths were attached to each of the 3 cleaning blocks used for the test. Each Wypall cloth and all coupons received 2 sprays of the Fantastik All Purpose Cleaner solution and the Gardner-scrub Abrasion Tester was run for 20 repetitions, simulating 20 manual wipes. Once cleaning concluded, the cleaned coupons were allowed to air dry for 24 hours. After 24 hours, the weights of the cleaned coupons were measured.																																												
Results:	<table border="1"> <thead> <tr> <th>Cleaner</th> <th>Substrate</th> <th>Initial wt of cont.</th> <th>Final wt of cont.</th> <th>%Cont Removed</th> <th>% AVG</th> <th>% Overall</th> </tr> </thead> <tbody> <tr> <td rowspan="9">Fantastik All Purpose Cleaner</td> <td rowspan="3">Ceramic</td> <td>0.2213</td> <td>0.0074</td> <td>96.66</td> <td rowspan="3">93.15</td> <td rowspan="3">89.63</td> </tr> <tr> <td>0.2424</td> <td>0.0120</td> <td>95.05</td> </tr> <tr> <td>0.1492</td> <td>0.0112</td> <td>92.49</td> </tr> <tr> <td rowspan="3">Plastic</td> <td>0.1907</td> <td>0.0221</td> <td>88.41</td> <td rowspan="3">86.77</td> <td rowspan="3"></td> </tr> <tr> <td>0.2006</td> <td>0.0292</td> <td>85.44</td> </tr> <tr> <td>0.2339</td> <td>0.0317</td> <td>86.45</td> </tr> <tr> <td rowspan="3">Painted Metal</td> <td>0.3761</td> <td>0.0471</td> <td>87.48</td> <td rowspan="3">88.97</td> <td rowspan="3"></td> </tr> <tr> <td>0.2265</td> <td>0.0232</td> <td>89.76</td> </tr> <tr> <td>0.2153</td> <td>0.0222</td> <td>89.69</td> </tr> </tbody> </table>	Cleaner	Substrate	Initial wt of cont.	Final wt of cont.	%Cont Removed	% AVG	% Overall	Fantastik All Purpose Cleaner	Ceramic	0.2213	0.0074	96.66	93.15	89.63	0.2424	0.0120	95.05	0.1492	0.0112	92.49	Plastic	0.1907	0.0221	88.41	86.77		0.2006	0.0292	85.44	0.2339	0.0317	86.45	Painted Metal	0.3761	0.0471	87.48	88.97		0.2265	0.0232	89.76	0.2153	0.0222	89.69
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