CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	2021
DateRun:	03/10/2021
Experimenters:	Ross Goding, Nicole Kebler
ClientType:	Cleaner Manufacturer
ProjectNumber:	Project #1
Substrates:	Ceramics, Wood, Vinyl Composite Tiles
PartType:	Coupon
Contaminants:	Inks, Dirt, Oil
Cleaning Methods:	Manual Wipe
Analytical Methods:	Gravimetric, Gloss-Color Meter
Purpose:	To analyze the efficiency of PathoSans All Purpose Cleaner for the removal of DCC-17 from 3 substrates.
Experimental Procedure:	First, a total of 18 coupons were obtained, 9 each for the two supplied cleaners (3 wood, 3 vinyl, 3 ceramic). The initial weights of the tiles were acquired to use as a standard and also determine how much soil was removed after cleaning. The coupons were then soiled using 1.0 g of DCC-17. The soiled coupons were then allowed to sit overnight for 24 hours in order for the soil to settle. The next day, the dry dirty weight was acquired and recorded. We used the specified cleaners to test their effectiveness on all the coupons. The coupons were cleaned as follows. 3 coupons were placed in a straight line within the SLW machine. A Wypall wipe was attached to the cleaning sled and soaked with 2 sprays of the cleaner being used for that run (Pathosans All Purpose cleaner and Pinesol). Each coupon was sprayed 2 times with the same solution. The SLW unit used 20 cycles for cleaning. At the end, the cleaned coupons had their final weights taken and recorded along with efficiencies calculated. Cleaners Evaluated: 1. Pinesol 2. PathoSans
Results:	Both Pathosans cleaner and Pinsol show the same result of 89% removal for overall product removal. Pinsol being cleaner A and having a 0.23% better removal rating than Pathosans cleaner. Wood substrate removal rating was low because the wood coupons used were slanted like trim inside a home. Thus, the SLW unit had trouble reaching all portions of this coupons surface.

Cleaner	Substrate	Initial wt. of con.	Final wt. of con.	% Removal	Average % removal	Product removal
Pinesol	Wood	1.10	0.41	62.92	69.10	89.46
		0.78	0.32	58.98		
		1.61	0.24	85.41		
	Vinyl	0.77	0.02	98.01	98.22	
		1.51	0.04	97.63		
		1.22	0.01	99.03		
	Ceramic	1.19	-0.05	104.02	101.05	
		1.69	0.00	99.99		
		1.56	0.01	99.14		
PathoSans	Wood	1.08	0.33	69.97	68.34	89.23
		0.99	0.41	58.66		
		1.09	0.26	76.40		
	Vinyl	1.24	0.01	99.32	99.18	
		0.78	0.01	98.57		
		2.03	0.01	99.64		
	Ceramic	1.10	0.00	99.85	100.18	
		1.20	0.00	99.80		
		0.65	-0.01	100.90		

.

Cleaner	Substrate	Initial	Dirty	Clean
Pinesol	Wood	55.66	25.78	44.27
		57.51	30.28	48.57

CLEANING LABORATORY EVALUATION SUMMARY

		55.79	29.59	49.86
	Vinyl	80.82	43.08	68.77
		81.20	27.37	64.77
		79.10	47.36	65.77
	Ceramic	89.71	38.55	88.92
		90.20	32.53	89.32
		89.35	41.48	89.09
PathoSans	Wood	58.12	28.83	54.64
		56.28	31.49	47.64
		55.73	30.55	53.39
	Vinyl	79.93	41.88	61.89
		79.59	37.10	68.19
		81.63	38.15	71.80
	Ceramic	88.47	43.56	88.15
		88.99	55.82	87.65
		85.17	30.96	88.74

Summary:

Substrates:	Ceramics, Wood, Vinyl Composite Tiles
Contaminants:	Inks, Dirt, Oil

Company Name:	Product Name:	Conc.:	Efficiency:	Effective:	Observations:
PathoSans	PathoClean		0.00	☑	PathoSans was effective for the removal of DCC-17 on wood, ceramic and vinyl

Conclusion:

Both cleaners average cleaning efficiencies were recorded. They both have the same percentage of cleaning efficiency with a percentage of 89%. From the observed wood coupons, the slant of the wood may have influenced the poor cleaning ability by the SLW machine. The products tested meet the satisfactory cleaning rating which is 85%. Since both cleaners were above this level, they did a great job at removing the soil.