CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	2010
DateRun:	05/12/2010
Experimenters:	Jason Marshall
ClientType:	Cleaning Equipment Mfr
ProjectNumber:	Project #3
Substrates:	Wood
PartType:	Coupon
Contaminants:	Food
Cleaning Methods:	Manual Wipe
Analytical Methods:	ATP Measurement
Purpose:	Follow up evaluation to compare various types of paper towels and squeegee for biological removal
Experimental Procedure:	Testing was conducted using water as the cleaning solvent. The tabletop surface (wood veneer) was pre-cleaned using an activated water cleaning system to enhance the removal of any biological material from the surface. A baseline reading was taken using a Hygiena System Sure Plus ATP measurement device in conjunction with Ultrasnap ATP test swabs. A four-inch square section of the pre-cleaned table was swabbed and read with the device. A green grape was cut in half and smeared across the surface to supply ATP. Following the application, a swab of the surface was taken to determine the level of ATP on the surface. The surface was sprayed with water and wiped again with each cloth type and a final ATP measurement was made. A second set of cleaning was performed by first using a squeegee then wiping with paper towel. Paper towel used: Kimberly Clark Wypal X60, Scott Naturals Towels (60% recycled content) and Bay West Green Seal Ecosoft bathroom paper hand towel.

Results:

Wipe Method	Initial	Dirty	Clean	%Reduction	Ave %
Kaivac microfiber	108	6528	749	88.5	85.2
	29	6588	1481	77.5	
	223	6355	671	89.4	
KM - squeegee	81	6209	831	86.6	76.3
	559	6170	1188	80.7	
	345	6184	2371	61.7	
Squeegee - KM	925	7987	792	90.1	92.5
	464	7987	565	92.9	
	292	7638	426	94.4	
Bathroom paper towel	695	7324	3234	55.8	72.1
	525	7187	2004	72.1	
	234	7154	827	88.4	
Squeegee - BPT	619	5495	807	85.3	87.6
	464	6483	755	88.4	
	538	7707	839	89.1	
Household paper towel	350	6775	6505	4.0	35.3
	381	7962	1621	79.6	
	984	6781	5276	22.2	
Squeegee - HPT		7000*	292	95.8	94.1
		7000*	684	90.2	
		7000*	273	96.1	
Kimberly Clark		7476	740	90.1	92.3

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Wypal X60 341					
	392	7493	274	96.3	
	102	7764	735	90.5	
Squeegee - KC Wypal		7000*	202	97.1	96.8
		7000*	241	96.6	

*estimated ATP level based on average of actual measured ATP of grape soil

Summary:

Conclusion: The use of a squeegee as the initial surface cleaning tool was shown to improve the performance of all of the surface wiping methods (microfiber or various paper types).