CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2009

DateRun: 06/03/2009

Experimenters: Jason Marshall, Junhee Cho, Timothy Weil

ClientType: Cleaner Manufacturer

ProjectNumber: Project #1

Substrates: Wood

PartType: Coupon

Contaminants: Hucker's Soil

Cleaning Methods: Manual Wipe

Analytical Methods: Gravimetric

Purpose: To evaluate supplied aerosol products for manual wood cleaning

Experimental Procedure: Preweighed wood (maple) coupons were coated with Hucker's Soil Formulation (Jif Creamy Peanut Butter 9.2%, Salted Butter 9.2%, Arrowhead Mills stone ground wheat flour 9.2%, Egg Yolk 9.2%, Evaporated milk 13.8%, Distilled water 45.8%, Printer's ink with boiled linseed oil 0.9%, Shaws saline solution 2.7%) using a hand held swab and allowed to dry for 24 hours at room temperature. The contaminated coupons were weighed again to determine the amount of soil added.

Three coupons were placed into a Gardner Straight Line Washability unit. A Kimberly Clark Reinforced paper towel was attached to the cleaning sled and soaked with 5-7 sprays of cleaning solutions. Each coupon was sprayed 7-10 times with the same cleaning solution. The solution was allowed to penetrate for 30 seconds followed by cleaning in the SLW unit for 20 cycles (~33 seconds). At the end of the cleaning, coupons were wiped once with a dry paper towel. Final weights were recorded and efficiencies were calculated and recorded.

Results: The supplied products results from the gravimetric analysis were inconclusive for Hucker's Soil removal. The table lists the amount of soil initially added and the amount remaining after cleaning and the product efficiency for each coupon cleaned. Visual rankings were conducted by three staff members.

Cleaner	Initial wt	Final w	% Removed
A00133	0.2077	0.1154	44.44
	0.2337	0.1502	35.73
	0.2698	0.1728	35.95
A00136	0.2062	0.1438	30.26
	0.1342	0.0488	63.64
	0.4245	0.2094	50.67
Spartan	0.2184	0.1364	37.55
	0.1680	0.1219	27.44
	0.2248	1.7378	-673.04
Claire	0.2306	-0.5674	346.05
	0.2637	-0.7480	383.66
	0.2391	0.1591	33.46
Pledge	0.2525	0.1584	37.27
	0.3206	0.2602	18.84
	0.3568	0.1852	48.09

Visual Rank

Obs 1	Obs 2	Obs 3	Ave:
3	2	3	2.7
1	1	1	1
4	4	5	4.3
2	5	2	3
5	3	4	4

Summary:

Substrates:	Wood				
Contaminants:	Hucker's Soil				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Amrep Inc	Aspire Furniture Cleaner & Polish A00133 Aerosol	100	0.00	☑	Rank = 2

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Amrep Inc	Misty Wax Polish A00136 Aerosol	100	0.00	☑	Rank = 1
Spartan Chemical Company	Premium Wood Polish - Aerosol	100	0.00	☐	Rank = 5
Claire Manufacturing	Multi-surface Furniture Polish Aerosol	100	0.00	☐	Rank = 3
SC Johnson & Son Inc	Pledge Lemon Clean Aerosol	100	0.00	☐	Rank = 4

Conclusion: Amrep's Aspire was found to have the second best ranking for cleaning based on visual assessment.