CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	2010
DateRun:	11/29/2010
Experimenters:	Jason Marshall, Timothy Weil, Kathleen Tenaglia
ClientType:	Cleaner Manufacturer
ProjectNumber:	Project #1
Substrates:	Ceramics, Plastic, Steel
PartType:	Coupon
Contaminants:	Hucker's Soil
Cleaning Methods:	Manual Wipe
Analytical Methods:	Gravimetric
Purpose:	To evaluate supplied product for general purpose cleaning using manual wiping.
Experimental Procedure:	The supplied cleaning product was used at the recommended concentrations (2 oz. per gallon). A second industry comparative product was used at a 2% dilution. Preweighed ceramic, painted steel and plastic coupons were coated with Hucker's Soil Formulation (Jif Creamy Peanut Butter 8.8%, Salted Butter 8.8%, Arrowhead Mills stone ground wheat flour 8.8%, Egg Yolk 8.8%, Evaporated milk 13.3%, Distilled water 44.2%, Printer's ink with boiled linseed oil 0.9%, Shaws saline solution 2.7%, India Ink 3.7%) using a handheld 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 two products visually looked to remove comparable amounts of the soil using manual cleaning. The table lists the amount of soil added, the amount remaining and the removal efficiency for each coupon cleaned.

Cleaner	Initial wt	Final wt	% Removed
DFC General Purpose - ceramic			
	0.4504	0.0523	88.39
	0.3649	0.0276	92.44
	0.2262	0.0238	89.48
DFC General Purpose - painted steel			
	0.0962	0.0185	80.77
	0.0506	0.0127	74.9
	0.0937	0.0136	85.49
DFC General Purpose - plastic			
	0.516	0.0069	98.66
	0.1487	0.0267	82.04
	0.0839	0.0115	86.29
3Rs - ceramic			
	0.3477	0.0232	93.33
	0.1801	0.028	84.45
	0.1888	0.0358	81.04
3Rs - painted steel			
	0.053	0.0094	82.26
	0.0406	0.0091	77.59
	0.2372	0.0152	93.59
3Rs - plastic			
	0.1839	0.0093	94.94
	0.0721	0.0132	81.69

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	0.0615	0.0027	95.61

Summary:

Substrates:	Ceramics, Plastic, Steel				
Contaminants:	Hucker's Soil				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Next-Gen Supply Group	3R All Purpose Cleaner	2	87.17	☑	

Conclusion: The DFC product and the comparative product removed more than 85% of the soil and would be considered effective all-purpose cleaners.