CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	2004
DateRun:	04/15/2004
Experimenters:	Jason Marshall
ClientType:	Cleaner Manufacturer
ProjectNumber:	Project #1
Substrates:	Ceramics
PartType:	Coupon
Contaminants:	Hucker's Soil
Cleaning Methods:	Manual Wipe
Analytical Methods:	Gravimetric, Photography
Purpose:	To reevaluate requested cleaner of SSL soil 3 at higher concentration

Experimental Procedure:

The supplied cleaning product was diluted with DI water to 2.3% for all purpose cleaning. Three preweighed ceramic 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. Photographs were taken.

Three coupons were placed into a Gardner Straight Line Washability unit. A Professional Painter's Rag 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 cleaning unit was run 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 a second set of photographs were taken. Efficiencies were calculated and recorded.

Results:

At the higher concentration, Bi-O-Kleen All Purpose removed over 85% of the Hucker's soil.

Cleaner	Initial wt	Final wt	% Removed
Bi-O-Kleen AP 2.3%	0.4174	0.0663	84.12
	0.8677	0.0701	91.92
	0.5899	0.0613	89.61

Summary:

Substrates:	Ceramics				
Contaminants:	Hucker's Soil				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Bi-O-Kleen Industries	Bi-O-Kleen Cleaner & Degreaser	2	88.55	☑	

Conclusion:

The higher concentration improved efficiency from 75% to 88%.