CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2004

DateRun: 04/13/2004

Experimenters: Jason Marshall, Heidi Wilcox

ClientType: Cleaner Manufacturer

ProjectNumber: Project #1

Substrates: Steel

PartType: Coupon

Contaminants: Greases, Dirt, Films

Cleaning Methods: Manual Wipe

Analytical Methods: Gravimetric, Photography

Purpose: To evaluate requested products on SSL Soil #4.

Experimental Procedure: The supplied cleaning products were diluted with DI water to 1.5% for all purpose/kitchen cleaning. Six preweighed painted steel coupons were coated with SSL Soil #4 All Purpose/Kitchen (Crisco Shortening, 35%; Maxwell House Slow Roast Coffee, 1 tsp/4 oz, 25%; Lipton The Brisk Tea, 1 bag/4 oz, 25%; Garelick Farms Half and Half, 5% Synthetic Carpet Soil Mix, 10%) 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: The Bi-O-Kleen All Purpose cleaner removed over 90% of the soil. The other removed just over 80%. The table below lists the amount of soil applied and removed from the coupons.

Cleaner	Initial wt	Final wt	% Removed
Bi-O-Kleen AP	0.1769	0.0103	94.18
	0.1287	0.0111	91.38
	0.1256	0.0141	88.77
Clean Env AP N-1	0.1752	0.0211	87.96
	0.0994	0.0319	67.91
	0.1127	0.0166	85.27

Summary:

Substrates:	Steel
Contaminants:	Greases, Dirt, Films

Company Name:	Product Name:	Conc.:	Efficiency:	Effective:	Observations:
Bi-O-Kleen Industries	Bi-O-Kleen Cleaner & Degreaser	2	91.44	☑	
The Clean Environment Co	All Purpose N-1	2	80.38	☐	

Conclusion: A third product will be tested under the same conditions when it arrives at the laboratory.