CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2013

DateRun: 09/22/2013

Experimenters: Jason Marshall, Loc Nguyen, Mina Le

ClientType: Cleaning Equipment Mfr

ProjectNumber: Project #1

Substrates: Ceramics, Plastic, Stainless Steel

PartType: Coupon

Contaminants: Hucker's Soil

Cleaning Methods:

Analytical Methods: Gravimetric, Visual, Gloss-Color Meter

Purpose: To evaluate four supplied products for all purpose cleaning following GS 37 requirements

Experimental Procedure: Preweighed Ceramic, Plastic, painted steel coupons were coated with Hucker Soil 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 Wypal reinforced paper towel was attached to the cleaning sled and soaked with 2-3 sprays of cleaning solutions. Each coupon was sprayed 1-2 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, efficiencies were calculated and recorded.

Results: All four products were effective at removing the DCC-17 from the three surfaces using manual wiping. The Green works resulted in the lowest efficiency, removing just over 87% of the Hucker Soil on ceramic coupon. The table lists the amount of soil added, the amount remaining after cleaning and the calculated efficiency for each coupon cleaned.

Summary:

Substrates:	Ceramics, Plastic, Stainless Steel				
Contaminants:	Hucker's Soil				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Water	Water	100	0.00	☐	Low flow
Water	Water	100	0.00	☐	High flow
Seventh Generation	Free & Clear All Purpose	100	87.00	☑	
Fisher Scientific	Absolute Ethanol	0	0.00	☐	

Conclusion: All of the four products were found to remove more than 85% of the Hucker Soil from various surfaces using manual wiping. The supplied product worked as well as the conventional cleaner and the on-the-market green cleaning product.