

CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2019

DateRun: 06/28/2019

Experimenters: Justin Rainaud

ClientType: Cleaner Manufacturer

ProjectNumber: Project #1

Substrates: Ceramics, Plastic, Painted metal

PartType: Coupon

Contaminants: Hucker's Soil

Cleaning Methods: Manual Wipe

Analytical Methods: Gravimetric, Visual

Purpose: To evaluate the effectiveness of the Better Life All-Purpose cleaner and a comparative product in removing Hucker's Soil from plastic, ceramic, and painted steel coupons.

Experimental Procedure: Nine pre-weighed coupons, three of each substrate per cleaner, were contaminated with one gram of Hucker's Soil Formulation (Jiff 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 handheld swab and dried for 24 hours at room temperature (68 F). The contaminated coupons were weighed before placing three coupons per cleaner of the same substrate into a Gardner Straight Line Washability (SLW) unit. A Kimberly-Clark Wypal reinforced paper towel was attached to the cleaning sled. The Wypal and each coupon was treated with three sprays and cleaned for 20 cycles (~30 seconds of cleaning). Cleaned coupons were wiped once with a dry paper towel before final weights were taken.

Results:

| Cleaner | Substrate | Initial wt. of cont. | Final wt. of cont. | %Cont. Removed |
|---|---------------|----------------------|--------------------|----------------|
| Better Life All Purpose Clary Sage | Plastic | 0.3612 | 0.0477 | 86.81 |
| | | 0.3545 | 0.0454 | 87.19 |
| | | 0.3431 | 0.0436 | 87.29 |
| | Ceramic | 0.3467 | 0.0925 | 73.32 |
| | | 0.3420 | 0.0413 | 87.92 |
| | | 0.3441 | 0.0443 | 87.13 |
| | Painted Steel | 0.3409 | 0.0500 | 85.33 |
| | | 0.3546 | 0.0496 | 86.01 |
| | | 0.3614 | 0.0611 | 83.09 |
| 7th Generation All Purpose Morning Meadow | Plastic | 0.3543 | 0.0226 | 93.62 |
| | | 0.3566 | 0.0397 | 88.87 |
| | | 0.3538 | 0.0393 | 88.89 |
| | Ceramic | 0.3489 | 0.0143 | 95.90 |
| | | 0.3658 | 0.0423 | 88.44 |
| | | 0.3509 | 0.0083 | 97.63 |
| | Painted Steel | 0.3604 | 0.0529 | 85.32 |
| | | 0.3668 | 0.0727 | 80.18 |
| | | 0.3628 | 0.0507 | 86.05 |

Summary:

| | | | | | |
|----------------------|----------------------------|----------------------------------|--------------------|-------------------------------------|----------------------|
| Substrates: | | Ceramics, Plastic, Painted metal | | | |
| Contaminants: | | Hucker's Soil | | | |
| Company Name: | Product Name: | Conc.: | Efficiency: | Effective: | Observations: |
| Better Life | All-Purpose Cleaner | 100% | 84.90 | <input checked="" type="checkbox"/> | |
| Seventh Generation | All Purpose Morning Meadow | 100% | 89.43 | <input checked="" type="checkbox"/> | |

Conclusion:

Better Life All Purpose Clary Sage cleaner is as effective as 7th Generation All Purpose Morning Meadow cleaner.