

CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2025

DateRun: 09/16/2025

Experimenters: Tatyanna Moreland Junior, Rachael Rososky

ClientType: Community Group

ProjectNumber: Project #2

Substrates: Ceramics, Plastic, Stainless Steel

PartType: Coupon

Contaminants: Hucker's Soil

Cleaning Methods: Manual Wipe

Analytical Methods: Gravimetric

Purpose: To test the efficiency of BWG Fantastic Cleaner against similar products and mixtures at removing Hucker's Soil from different substrates.

Experimental Procedure: The four cleaners that were used were BWG Fantastic Cleaner, TURI Fantastic V4, Fabuloso, and Dr. Bronner's All Purpose. The three substrates were ceramic, stainless steel, and polycarbonate. Three coupons of each substrate were cleaned by each cleaner, making 36 coupons in total. Initial weights of each coupon were taken, and then a thin layer of soil was added down the middle of the coupon. They sat to dry for two hours, then the dirty weights were taken. The SLW (straight-line washing unit) was used to clean the contaminant one coupon at a time. The SLW ran for 20 cleaning cycles (30 seconds of manual cleaning). After, the coupons sat for 10 minutes, and then clean weights were taken.

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Results:

| Cleaner | Substrate | Initial wt of cont. | Final wt of cont. | % Cont Removed | Average % Removal | Average Cleaner % |
|---------------------------|-----------------|---------------------|-------------------|----------------|-------------------|-------------------|
| BWG Fantastic OG | Ceramic | 0.2233 | 0.0025 | 98.88 | 94.50 | 94.06 |
| | | 0.2511 | 0.0059 | 97.65 | | |
| | | 0.1374 | 0.0179 | 86.97 | | |
| | Stainless Steel | 0.069 | 0.0047 | 93.19 | 93.62 | |
| | | 0.0441 | 0.0024 | 94.56 | | |
| | | 0.0682 | 0.0047 | 93.11 | | |
| | Polycarbonate | 0.2034 | 0.0099 | 95.13 | 91.38 | |
| | | 0.2439 | 0.0076 | 96.88 | | |
| | | 0.183 | 0.0327 | 82.13 | | |
| Fantastic V4 | Ceramic | 0.1447 | 0.0089 | 93.85 | 89.47 | 88.72 |
| | | 0.1313 | 0.0074 | 94.36 | | |
| | | 0.1374 | 0.0272 | 80.20 | | |
| | Stainless Steel | 0.1434 | 0.0181 | 87.38 | 87.96 | |
| | | 0.1771 | 0.01 | 94.35 | | |
| | | 0.1966 | 0.0351 | 82.15 | | |
| | Polycarbonate | 0.179 | 0.0181 | 89.89 | 92.21 | |
| | | 0.1947 | 0.0055 | 97.18 | | |
| | | 0.1848 | 0.0193 | 89.56 | | |
| Fabuloso | Ceramic | 0.0876 | 0.0043 | 95.09 | 93.10 | 92.97 |
| | | 0.0308 | 0.0025 | 91.88 | | |
| | | 0.1512 | 0.0116 | 92.33 | | |
| | Stainless Steel | 0.132 | 0.0094 | 92.88 | 92.85 | |
| | | 0.1226 | 0.0117 | 90.46 | | |
| | | 0.1169 | 0.0056 | 95.21 | | |
| | Polycarbonate | 0.1299 | 0.0257 | 80.22 | 77.39 | |
| | | 0.1289 | 0.0414 | 67.88 | | |
| | | 0.1456 | 0.0232 | 84.07 | | |
| Dr. Bronner's All Purpose | Ceramic | 0.1054 | 0.0166 | 84.25 | 92.27 | 93.25 |
| | | 0.1248 | 0.0026 | 97.92 | | |
| | | 0.0804 | 0.0043 | 94.65 | | |
| | Stainless Steel | 0.0954 | 0.0014 | 98.53 | 94.23 | |
| | | 0.1444 | 0.0185 | 87.19 | | |
| | | 0.1155 | 0.0035 | 96.97 | | |
| | Polycarbonate | 0.1448 | 0.02 | 86.19 | 89.93 | |
| | | 0.118 | 0.0175 | 85.17 | | |
| | | 0.1141 | 0.0018 | 98.42 | | |

Summary:

| | | | | | |
|---------------------------|---|---------------|--------------------|-------------------------------------|--------------------------------|
| Substrates: | Ceramics, Plastic, Stainless Steel | | | | |
| Contaminants: | Hucker's Soil | | | | |
| Company Name: | Product Name: | Conc.: | Efficiency: | Effective: | Observations: |
| Brazilian Womens Group | Fantastic Multi-Cleaner Original | 100 | 94.06 | <input checked="" type="checkbox"/> | Cleaner gets cloudy over time. |
| Colgate-Palmolive Company | Fabuloso (2x Concentrated Forumula) | 8 | 92.97 | <input checked="" type="checkbox"/> | |
| Dr. Bronner's | Dr. Bonner's 18-in-1 Hemp Pure Castile Soap | 6 | 93.25 | <input checked="" type="checkbox"/> | |
| Brazilian Womens Group | Fantastic Multicleaner Version 4 | | 88.72 | <input checked="" type="checkbox"/> | |

Conclusion:

All of the cleaners were efficient at removing Hucker's soil. The original BWG Fantastic DIY Cleaner did the best overall, with Dr. Bronner's All-Purpose dilution right behind it. Dr. Bronner's could be a more cost-effective and less time-consuming replacement for the DIY cleaner.