

CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2022
 DateRun: 06/30/2022
 Experimenters: Zoe Lawson, Tatyanna Moreland Junior, Alexander Symko
 ClientType:
 ProjectNumber: Project #5
 Substrates: Ceramics, Plastic, Chrome
 PartType: Coupon
 Contaminants: SSL Soil 1 Bathroom Soap Scum
 Cleaning Methods: Manual Wipe
 Analytical Methods: Gravimetric, Visual
 Purpose: To evaluate the efficiency of the 2.45g Podsy Bathroom Cleaner.

Experimental Procedure: Eighteen pre-weighed coupons, three of each substrate per cleaner, were each contaminated with bathroom soil (28.6% All-in-one shampoo and conditioner, 21.4% Dry skin lotion, 21.4% Liquid Hand Soap, 14.3% Liquid body wash, 7.2% Deodorant bar soap, 7.1% Water). The coupons were dried for 24 hours at room temperature (68 F). Once dried, the dirty weights of the coupons were recorded. The Podsy solution was then created by placing a 2.45g solution pod into a 16oz spray bottle and filling it with cold water (~50°F). The solution was allowed to sit for 2 minutes and then was shaken to mix the solution parts together. Three coupons of the same substrate were then aligned into a Single Line Washing Unit (SLW) with a Wypall X60 attached to the cleaning sled. Each Wypall X60 cloth and coupon received three sprays of the Podsy solution. The Single Line Washing Unit (SLW) was then activated for 20 repetitions, simulating 20 manual wipes. This was repeated for each substrate until all of the coupons were cleaned. The clean coupons were then allowed to dry overnight at room temperature before the final weights were recorded. The same process was repeated for the comparative product at the same time.

Results:

Cleaning Efficiency Results:

| Product | Substrate | Initial wt of cont. | Final wt of cont. | %Cont Removed | Average | Overall Average |
|-------------------------|-----------|---------------------|-------------------|---------------|---------|-----------------|
| Podsy Bathroom Cleaner | Chrome | 0.0653 | 0.0000 | 100.00 | 99.86 | 99.12 |
| | | 0.0702 | 0.0002 | 99.72 | | |
| | | 0.0686 | 0.0001 | 99.85 | | |
| | Ceramic | 0.0717 | 0.0001 | 99.86 | 97.74 | |
| | | 0.0866 | 0.0017 | 98.04 | | |
| | | 0.1004 | 0.0047 | 95.32 | | |
| | Plastic | 0.1023 | 0.0000 | 100.00 | 99.78 | |
| | | 0.0828 | 0.0004 | 99.52 | | |
| | | 0.0552 | 0.0001 | 99.82 | | |
| Clorox Bathroom Cleaner | Chrome | 0.0859 | 0.0001 | 99.88 | 99.65 | 95.86 |
| | | 0.0908 | 0.0001 | 99.89 | | |
| | | 0.0597 | 0.0005 | 99.16 | | |
| | Ceramic | 0.0789 | 0.0013 | 98.35 | 98.28 | |
| | | 0.0960 | 0.0022 | 97.71 | | |
| | | 0.0740 | 0.0009 | 98.78 | | |
| | Plastic | 0.0605 | 0.0009 | 98.51 | 89.65 | |
| | | 0.0788 | 0.0106 | 86.55 | | |
| | | 0.0769 | 0.0124 | 83.88 | | |

Summary:

| | | | | | |
|----------------------|--------------------------------|---------------|--------------------|-------------------------------------|----------------------|
| Substrates: | Ceramics, Plastic, Chrome | | | | |
| Contaminants: | SSL Soil 1 Bathroom Soap Scum | | | | |
| Company Name: | Product Name: | Conc.: | Efficiency: | Effective: | Observations: |
| Big 3 Packaging | Podsy Bathroom Cleaning System | 2.45g:16oz | 99.12 | <input checked="" type="checkbox"/> | |
| Clorox Company | Clorox Bathroom Cleaner | RTU | 95.86 | <input checked="" type="checkbox"/> | |

Conclusion:

The Podsy 2.45g Bathroom Cleaner was slightly more effective than Clorox Bathroom Cleaner at removing bathroom soil from chrome, ceramic, and plastic substrates. Overall, the Podsy Cleaner was 99.12% effective at removing contaminant while the Clorox Bathroom Cleaner was only 95.86% effective.