

# CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2025

DateRun: 01/28/2025

Experimenters: Cindy McClaughlin, Rachael Rososky

ClientType: Cleaner Manufacturer

ProjectNumber: Project #1

Substrates: Plastic, Wood, Painted metal

PartType: Coupon

Contaminants: Hucker's Soil

Cleaning Methods: Mechanical Agitation

Analytical Methods: Gravimetric

Purpose: To test the efficiency of ServeCo All Purpose Cleaner against Seventh Generation All Purpose Cleaner at removing Hucker's Soil from various substrates.

Experimental Procedure: Eighteen pre-weighed coupons, three per substrate per cleaner, were contaminated with 0.5 g of Hucker's soil composed of 44.2% distilled water, 13.5% evaporated milk, 8.8% salted butter, 8.8% stone ground wheat flour, 8.8% egg yolk, 0.9% printer's ink with boiled linseed oil, 2.7% saline solution, and 3.5% India ink. Coupons dried at room temperature (68°F) for 24 hours before their dirty weights were recorded.

Three coupons of the same substrate were placed in a Single Line Washing Unit (SLW) with a Wypall X60 wipe attached to the cleaning sled. The wipe and coupons were sprayed three times with the cleaner and soaked for 30 seconds. The SLW was then run for 20 cleaning cycles (30 seconds of manual cleaning). Coupons dried overnight at room temperature before final weights were recorded.

## Results:

| Cleaner                        | Substrate         | Initial wt of cont. | Final wt of cont. | %Cont Removed | Average % Removal | Average Cleaner % |
|--------------------------------|-------------------|---------------------|-------------------|---------------|-------------------|-------------------|
| ServeCo All Purpose            | Finished Oak Wood | 0.2055              | 0.0775            | 62.29         | 63.60             | 67.47             |
|                                |                   | 0.1927              | 0.0611            | 68.29         |                   |                   |
|                                |                   | 0.1996              | 0.0794            | 60.22         |                   |                   |
|                                | Plastic           | 0.2407              | 0.0226            | 90.61         | 67.46             |                   |
|                                |                   | 0.2297              | 0.0434            | 81.11         |                   |                   |
|                                |                   | 0.2367              | 0.1641            | 30.67         |                   |                   |
|                                | Painted Metal     | 0.2192              | 0.1041            | 52.51         | 71.34             |                   |
|                                |                   | 0.2322              | 0.0361            | 84.45         |                   |                   |
|                                |                   | 0.2361              | 0.0542            | 77.04         |                   |                   |
| Seventh Generation All Purpose | Finished Oak Wood | 0.1933              | 0.1376            | 28.82         | 29.57             | 55.97             |
|                                |                   | 0.1863              | 0.1242            | 33.33         |                   |                   |
|                                |                   | 0.1811              | 0.133             | 26.56         |                   |                   |
|                                | Plastic           | 0.2144              | 0.2095            | 2.29          | 56.32             |                   |
|                                |                   | 0.2454              | 0.0178            | 92.75         |                   |                   |
|                                |                   | 0.2433              | 0.0634            | 73.94         |                   |                   |
|                                | Painted Metal     | 0.2318              | 0.0471            | 79.68         | 82.00             |                   |
|                                |                   | 0.2347              | 0.0244            | 89.60         |                   |                   |
|                                |                   | 0.2346              | 0.0546            | 76.73         |                   |                   |

## Summary:

|                       |                              |               |                    |                                     |                      |
|-----------------------|------------------------------|---------------|--------------------|-------------------------------------|----------------------|
| <b>Substrates:</b>    | Plastic, Wood, Painted metal |               |                    |                                     |                      |
| <b>Contaminants:</b>  | Hucker's Soil                |               |                    |                                     |                      |
| <b>Company Name:</b>  | <b>Product Name:</b>         | <b>Conc.:</b> | <b>Efficiency:</b> | <b>Effective:</b>                   | <b>Observations:</b> |
| ServeCo North America | ServeCo All Purpose Cleaner  | 100%          |                    | <input checked="" type="checkbox"/> |                      |
| Seventh Generation    | All-Purpose Natural Cleaner  | 100%          |                    | <input type="checkbox"/>            |                      |

## Conclusion:

ServeCo All Purpose Cleaner was more effective than Seventh Generation All Purpose on finished oak wood, plastic, and painted metal.