

CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2020
 DateRun: 06/11/2020
 Experimenters: Alicia McCarthy, Hayley Byra
 ClientType: Cleaner Manufacturer
 ProjectNumber: Project #1
 Substrates: Ceramics
 PartType: Coupon
 Contaminants: Food
 Cleaning Methods: Manual Wipe
 Analytical Methods: Gravimetric
 Purpose: To evaluate the stability and effectiveness of L'AVANT Collective Dish Soap against Dawn Dish Soap on the removal of Soil B from ceramic plates.

Experimental Procedure: Clean ceramic plates were soiled with six grams of 4009 Soil B (50% All Purpose Flour, 48% Crisco Shortening, and 2% Olive Oil) and air dried for 24 hours at room temperature (68°F). Four millimeters of each dish soap were measured out and each were mixed with four liters of tap water heated to 120°F, which was recorded when poured sequentially into the washing basin. Twenty seconds after the reservoir was prepared, the manual cleaning method began. Each plate was washed at an angle, half submerged in the water, cleaning both the front and back sides of each plate with a sponge in a circular motion for 30 seconds. This process continued until half the surface of the wash solution showed a thin layer of foam. The number of plates cleaned as well as the final temperature of the water in the basin were recorded. This process was performed with each dish soap.

Results:

| Cleaner | Initial wt of cont. | Final wt of cont. | %Cont Removed | Average % Removal |
|------------------------------|---------------------|-------------------|---------------|-------------------|
| Dawn Dish Soap | 6.04 | -0.03 | 100.50 | 99.64 |
| | 6.07 | -0.03 | 100.49 | |
| | 5.15 | -0.93 | 118.06 | |
| | 5.97 | 0.04 | 99.33 | |
| | 6.05 | 0.10 | 98.35 | |
| | 6.09 | 0.26 | 95.73 | |
| | 6.12 | 0.23 | 96.24 | |
| | 6.05 | 0.48 | 92.07 | |
| | 6.04 | 0.24 | 96.03 | |
| L'AVANT Collective Dish Soap | 6.23 | -0.06 | 100.96 | 96.91 |
| | 6.09 | -0.03 | 100.49 | |
| | 6.23 | 0.04 | 99.36 | |
| | 6.03 | 0.18 | 97.01 | |
| | 6.08 | 0.29 | 95.23 | |
| | 6.20 | 0.72 | 88.39 | |

Plate Count

| Cleaner | Initial Temperature (°F) | Final Temperature (°F) | # of Plates Washed |
|------------------------------|--------------------------|------------------------|--------------------|
| Dawn Dish Soap | 117.00 | 103.00 | 9.00 |
| L'AVANT Collective Dish Soap | 117.00 | 103.00 | 6.00 |

Summary:

| | | | | | |
|----------------------|------------------------------|---------------|--------------------|-------------------------------------|----------------------|
| Substrates: | Ceramics | | | | |
| Contaminants: | Food | | | | |
| Company Name: | Product Name: | Conc.: | Efficiency: | Effective: | Observations: |
| Procter & Gamble | Dawn Dish Detergent | 0.1 | 99.64 | <input checked="" type="checkbox"/> | |
| L'AVANT Collective | L'AVANT Collective Dish Soap | 0.1% | 96.91 | <input checked="" type="checkbox"/> | |

Conclusion:

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L'AVANT Collective Dish Soap was not as effective as Dawn Dish Soap in removing Soil B from ceramic plates.