

# CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2017

DateRun: 12/20/2017

Experimenters: Alicia McCarthy, Hayley Byra

ClientType: Cleaner Manufacturer

ProjectNumber: Project #1

Substrates: Porcelain

PartType: Coupon

Contaminants: Greases, Food

Cleaning Methods: Manual Wipe

Analytical Methods: Gravimetric

Purpose: To compare the effectiveness of removing soil from an oven surface using the supplied cleaning products.

Experimental Procedure: Six preweighed coupons, three for each cleaner, were soiled with 0.37g of CSPA DCC-12 soil (85.4% Butter, 6.5% sugar, 4.3% deionized water, 3.4% flour) using a swab and baked in an oven preheated at 475°F for 120 minutes. Coupons were removed after baking and allowed to cool before taking dirty weights. A sponge, provided by EcoEgg, was used to manually clean with both the supplied and comparative product. The sponge was saturated once with deionized water before rubbing it into the EcoEgg Hard Surface Cleaner in a circular motion for five seconds. Coupons were cleaned one at a time for 30 seconds in a circular motion with a reapplication of the cleaner between each coupon. A dime sized drop of the comparative product was applied directly to the coupons one at a time and cleaned with a wet sponge for 30 sections in a circular motion. The coupons were dried by wiping once with a microfiber towel before taking final weights and visual observations.

## Results:

| Cleaner                           | Initial wt. | Final wt. | % Removed | % Average |
|-----------------------------------|-------------|-----------|-----------|-----------|
| Hard Surface Cleaner Citrus Burst | 0.0788      | 0.0042    | 94.67     | 96.35     |
|                                   | 0.0984      | 0.0010    | 98.98     |           |
|                                   | 0.0696      | 0.0032    | 95.40     |           |
| Soft Scrub                        | 0.1663      | 0.0161    | 90.32     | 93.93     |
|                                   | 0.1538      | 0.0097    | 93.69     |           |
|                                   | 0.1528      | 0.0034    | 97.77     |           |

## Observations:

EcoEgg product caused some chalky residue after drying. There was some soil left behind on all of the coupons. More time and agitation for both cleaning products would have completely removed all of the soil. EcoEgg product had an easier time lifting off the soil from the coupon after a few seconds of scrubbing with the sponge.

## Summary:

|                      |                             |               |                    |                                     |                      |
|----------------------|-----------------------------|---------------|--------------------|-------------------------------------|----------------------|
| <b>Substrates:</b>   | Porcelain                   |               |                    |                                     |                      |
| <b>Contaminants:</b> | Greases, Food               |               |                    |                                     |                      |
| <b>Company Name:</b> | <b>Product Name:</b>        | <b>Conc.:</b> | <b>Efficiency:</b> | <b>Effective:</b>                   | <b>Observations:</b> |
| Eco Egg              | Hard Surface Cleaner Citrus | 100           | 96.35              | <input checked="" type="checkbox"/> |                      |
| Dial Professional    | Soft Scrub Lemon            | 100           | 93.93              | <input checked="" type="checkbox"/> |                      |

Conclusion: Eco Egg Hard Surface Cleaner Citrus Burst is as effective as the comparative product at removing oven soil from porcelain.