

# CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2016

DateRun: 01/04/2016

Experimenters: Alicia Melvin, Luis Raudales

ClientType: Cleaner Manufacturer

ProjectNumber: Project #2

Substrates: Ceramics, Plastic, Steel

PartType: Coupon

Contaminants: Hucker's Soil

Cleaning Methods:

Analytical Methods: Gravimetric

Purpose: To evaluate two all-purpose cleaners supplied products for Hucker's soil removal from various surfaces

Experimental Procedure: The two cleaning products were used at the requested dilutions, 1:128 for PC-120 and 2oz/128 for Ecolab Wall glide, both at room temperature during the test. Nine pre-weighed coupons per cleaner (three Ceramic, three Plastic and three Painted steel) were coated with 0.5g Hucker's soil at room temperature using a handheld swab. The contaminated coupons were air dried for two hours at room temperature and weighed again to determine the amount of soil added.

The three coupons of each substrate were placed in the SLW equipment, and a KC Wypal reinforced paper towel was attached to the cleaning sled and soaked with 2 sprays of cleaning solution. Each coupon was sprayed twice with the same cleaning solution. The cleaning unit was run for 20 cycles (30 sec). At the end of the cleaning cycle, the coupons were wiped once with a dry paper towel. Coupons dried overnight and final weights were recorded. Efficiencies were calculated and recorded.

Results: Cleaners evaluated: PC-120 by MD Stetson Co. Inc.; Wall Glide Plus by Ecolab Inc.

| Cleaner    | Substrates    | Soil added (grams) | % removed 30 sec | Av. Rem. Per substrate | Average rem. Cleaner |
|------------|---------------|--------------------|------------------|------------------------|----------------------|
| PC-120     | Ceramic       | 0.16               | 87.42            |                        |                      |
|            |               | 0.2                | 94.65            | 92.52                  |                      |
|            |               | 0.21               | 95.49            |                        |                      |
|            | Plastic       | 0.27               | 89.54            |                        |                      |
|            |               | 0.23               | 95.47            | 92.29                  | 86.76                |
|            |               | 0.23               | 91.86            |                        |                      |
|            | Painted Steel | 0.21               | 75.04            |                        |                      |
|            |               | 0.1                | 75.87            | 75.46                  |                      |
|            |               | 0.21               | 75.46            |                        |                      |
| Wall Glide | Ceramic       | 0.2                | 89.11            |                        |                      |
|            |               | 0.19               | 87.67            | 88.48                  |                      |
|            |               | 0.21               | 88.67            |                        |                      |
|            | Plastic       | 0.21               | 97.48            |                        |                      |
|            |               | 0.21               | 98.13            | 98.47                  | 94.48                |
|            |               | 0.19               | 99.79            |                        |                      |
|            | Painted Steel | 0.23               | 96.67            |                        |                      |
|            |               | 0.2                | 97.48            | 96.5                   |                      |
|            |               | 0.22               | 95.36            |                        |                      |

Summary:

|                       |                                      |                          |                    |                                     |                      |  |
|-----------------------|--------------------------------------|--------------------------|--------------------|-------------------------------------|----------------------|--|
| <b>Substrates:</b>    |                                      | Ceramics, Plastic, Steel |                    |                                     |                      |  |
| <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> |  |
| Next-Gen Supply Group | PC 120 Peroxide Multisurface Cleaner | 1.5                      | 86.76              | <input checked="" type="checkbox"/> |                      |  |

Conclusion: At the end of the cycle (30 sec), the Wall Glide Plus was capable to remove up to 94.48% of the Hucker's soil. The other cleaner, PC-120, removed up to 86.76%.