

# CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2003  
 DateRun: 07/08/2003  
 Experimenters: Jason Marshall, Heidi Wilcox  
 ClientType: State Agency  
 ProjectNumber: Project #2  
 Substrates: Ceramics, Fiberglass, Chrome  
 PartType: Coupon  
 Contaminants: Soaps  
 Cleaning Methods: Manual Wipe  
 Analytical Methods: Gravimetric, Photography

Purpose: To reevaluate products using vendor recommended concentrations changes.

Experimental Procedure: One supplied cleaning product was diluted to vendor recommended concentration for bathroom cleaning (8:1). The product was diluted with DI water. Three preweighed fiberglass, three ceramic and three chrome coupons were coated with SSL Soil 1 (Bathroom soap scum: Vaseline Dry Skin Lotion 21.4%, Dial Clean Rinsing Body Wash 14.3%, Market Basket Shampoo & Conditioner (Pert) 28.6%, Soft Soap Natural Liquid hand soap 21.4%, Coast Deodorant bar soap 7.2% and Water 7.1%) using a hand held swab and allowed to dry for 24 hours at room temperature. The contaminated coupons were weighed again to determine the amount of soil added. Photographs were taken.

Three coupons were placed into a Gardner Straight Line Washability unit. A Professional Painter's Rag was attached to the cleaning sled and soaked with 5-7 sprays of cleaning solutions. Each coupon was sprayed 7-10 times with the same cleaning solution. The cleaning unit was run for 20 cycles (~33 seconds). At the end of the cleaning, coupons were wiped once with a dry paper towel. Final weights were recorded and a second set of photographs were taken. Efficiencies were calculated and recorded.

Results: The cleaning solutions had little difficulty with SSL Soil 1 on all three substrates. The table below lists the amount of soil added and removed.

Table 1. Soil Removal

| Cleaner          | Initial wt | Final wt | % Removed |
|------------------|------------|----------|-----------|
| CleanEnvBFiber   | 0.2652     | 0.0121   | 95.44     |
|                  | 0.2244     | 0.0160   | 92.87     |
|                  | 0.2270     | 0.0396   | 82.56     |
| CleanEnvBCeramic | 0.1568     | 0.0226   | 85.59     |
|                  | 0.1471     | 0.0144   | 90.21     |
|                  | 0.1400     | 0.0179   | 87.21     |
| CleanEnvBChrome  | 0.0554     | 0.0046   | 91.70     |
|                  | 0.0769     | 0.0036   | 95.32     |
|                  | 0.0596     | 0.0034   | 94.30     |

Summary:

| <b>Substrates:</b>       |   | Ceramics, Fiberglass, Chrome |             |                                     |   |
|--------------------------|---|------------------------------|-------------|-------------------------------------|---|
| <b>Contaminants:</b>     |   | Soaps                        |             |                                     |   |
| Company Name:            | Product Name:                                 | Conc.:                       | Efficiency: | Effective:                          | Observations:                                       |
| The Clean Environment Co | N-7 (the Natural) Basin, Tub and Tile Cleaner | 12                           | 90.58       | <input checked="" type="checkbox"/> | Fiberglass - 90.29; Ceramic - 87.67; Chrome - 93.77 |

Conclusion: The product was successful in cleaning the bathroom soil on all three substrates at the vendor suggested concentration.