

# CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2006  
 DateRun: 07/14/2006  
 Experimenters: Jason Marshall  
 ClientType: Cleaner Manufacturer  
 ProjectNumber: Project #1  
 Substrates: Ceramics, Fiberglass, Chrome  
 PartType: Coupon  
 Contaminants: Films, Soaps  
 Cleaning Methods: Manual Wipe  
 Analytical Methods: Gravimetric

Purpose: To evaluate supplied products for bathroom cleaning on three substrates.

Experimental Procedure: One supplied cleaning products were diluted to vendor recommended concentration for bathroom cleaning (20:1) diluted with DI water and the second was used at full strength.

Six preweighed fiberglass, six ceramic and six 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.

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. Efficiencies were calculated and recorded.

Results: The DFC Degreaser had some difficulty removing the Bathroom soil from the ceramic coupons. The table lists the amount of soil added, the amount remaining and the percent removed for each coupon cleaned.

| Cleaner                               | Initial wt | Final wt | % Removed |
|---------------------------------------|------------|----------|-----------|
| Degreaser Ceramic                     | 0.3128     | 0.0629   | 79.89     |
|                                       | 0.3580     | 0.0686   | 80.84     |
|                                       | 0.3404     | 0.0721   | 78.82     |
| Cogent Sodium hypochlorite Ceramic    | 0.1586     | 0.0497   | 68.66     |
|                                       | 0.1879     | 0.0094   | 95.00     |
|                                       | 0.3361     | 0.0416   | 87.62     |
| Degreaser Chrome                      | 0.3419     | 0.0365   | 89.32     |
|                                       | 0.3891     | 0.0569   | 85.38     |
|                                       | 0.1665     | 0.0293   | 82.40     |
| Cogent Sodium hypochlorite Chrome     | 0.4488     | 0.0382   | 91.49     |
|                                       | 0.3557     | 0.0320   | 91.00     |
|                                       | 0.3266     | 0.0311   | 90.48     |
| Degreaser Fiberglass                  | 0.2755     | 0.0169   | 93.87     |
|                                       | 0.3005     | 0.0144   | 95.21     |
|                                       | 0.3866     | 0.0231   | 94.02     |
| Cogent Sodium hypochlorite Fiberglass | 0.2047     | 0.0127   | 93.80     |
|                                       | 0.4084     | 0.0155   | 96.20     |
|                                       | 0.2858     | 0.0152   | 94.68     |

Summary:

|                      |                              |               |                    |                   |                      |  |
|----------------------|------------------------------|---------------|--------------------|-------------------|----------------------|--|
| <b>Substrates:</b>   | Ceramics, Fiberglass, Chrome |               |                    |                   |                      |  |
| <b>Contaminants:</b> | Films, Soaps                 |               |                    |                   |                      |  |
| <b>Company Name:</b> | <b>Product Name:</b>         | <b>Conc.:</b> | <b>Efficiency:</b> | <b>Effective:</b> | <b>Observations:</b> |  |

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|                                |                             |     |       |                                     |  |
|--------------------------------|-----------------------------|-----|-------|-------------------------------------|--|
| Cogent Environmental Solutions | DFC Degreaser               | 5   | 86.64 | <input checked="" type="checkbox"/> |  |
| Cogent Environmental Solutions | DFC Sodiumhypochlorite 0.02 | 100 | 89.88 | <input checked="" type="checkbox"/> |  |

Conclusion: Both products removed over 85% of the Bathroom soil mix.