

CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2004
 DateRun: 07/16/2004
 Experimenters: Jason Marshall
 ClientType: Chemical Company
 ProjectNumber: Project #1
 Substrates: Glass/Quartz
 PartType: Coupon
 Contaminants: Films, Soaps
 Cleaning Methods: Manual Wipe
 Analytical Methods: Gravimetric, Photography
 Purpose: To evaluate supplied product on glass soap scum

Experimental Procedure: The supplied cleaning product was used at the supplied concentration. A second product, selected by the lab, was diluted with DI water to vendor recommended dilution (0.4%) for glass cleaning.

Six preweighed chrome coupons were coated with SSL Soil 2 (Glass soap scum: Water 51.5%, Hair gel 25.6%, Toothpaste 10.4%, Shaving cream 5.3%, Hair spray 3.7% and Spray deodorant 3.5%) 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 of the dirty coupons 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 solution was allowed to penetrate for 30 seconds followed by cleaning in the SLW unit for 5 cycles (~10 seconds). At the end of the cleaning, coupons were wiped once with a dry paper towel. Final weights were recorded and cleaned coupons were photographed. Efficiencies were calculated and recorded.

Results: Both products were effective in removing the soil with a manual wiping action. The table lists the amount of soil initially added and the amount remaining after cleaning and the product efficiency for each coupon cleaned. Dirty and clean pictures are also provided below.

| Cleaner | Initial wt | Final wt | % Removed |
|-------------|------------|----------|-----------|
| ion.a.Clean | 0.0800 | 0.0055 | 93.12 |
| | 0.0997 | 0.0025 | 97.49 |
| | 0.0962 | 0.0013 | 98.65 |
| Super H2O2 | 0.0717 | 0.0023 | 96.79 |
| | 0.0724 | 0.0040 | 94.48 |
| | 0.0945 | 0.0026 | 97.25 |

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|----------------------|-------------------------------|-----------------------------------|--------------------|-------------------------------------|----------------------|--|
| Summary: | | Substrates: Glass/Quartz | | | | |
| | | Contaminants: Films, Soaps | | | | |
| Company Name: | Product Name: | Conc.: | Efficiency: | Effective: | Observations: | |
| Castle International | ion.a.Clean | 100 | 96.42 | <input checked="" type="checkbox"/> | | |
| Cleanline Products | H2O2 Super Citrus Concentrate | 0 | 96.17 | <input checked="" type="checkbox"/> | | |

Conclusion: The two products will be tested on SSL Soil 4 General Purpose kitchen under similar conditions.