

CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2008

DateRun: 08/11/2008

Experimenters: Jason Marshall, Shweta Bansal

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 following GS 8 and 37 guidelines.

Experimental Procedure: The three supplied cleaning products were used at full strength and a fourth industry standard product was diluted to vendor recommended concentration for all purpose cleaning (12.5%).

Preweighed fiberglass, ceramic, and 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 handheld 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 Kimberly-Clark Wypal reinforced paper towel 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: All three supplied products removed more than 85% of the bathroom soap scum/film using manual wiping. All three products performed comparably to the selected industry standard product. The table lists the substrate cleaned, the amount of soil added, the amount remaining and the efficiency for each coupon cleaned.

Cleaner/Substrate

| Cleaner | Initial wt | Final wt | % Removed |
|--------------------|------------|----------|-----------|
| Janitors Ceramic | 0.1303 | 0.0213 | 83.65 |
| | 0.1295 | 0.0292 | 77.45 |
| | 0.1424 | 0.0087 | 93.89 |
| Heavy Ceramic | 0.1013 | 0.0085 | 91.61 |
| | 0.0681 | 0.0058 | 91.48 |
| | 0.0846 | 0.0103 | 87.83 |
| CleanGreen Ceramic | 0.1379 | 0.0094 | 93.18 |
| | 0.1144 | 0.0070 | 93.88 |
| | 0.1401 | 0.0081 | 94.22 |
| Washroom Ceramic | 0.0604 | 0.0045 | 92.55 |
| | 0.0381 | 0.0018 | 95.28 |
| | 0.0607 | 0.0068 | 88.80 |
| Janitors Chrome | 0.0580 | 0.0032 | 94.48 |
| | 0.0728 | 0.0026 | 96.43 |
| | 0.0681 | 0.0036 | 94.71 |
| Heavy Chrome | 0.0632 | 0.0037 | 94.15 |
| | 0.0517 | 0.0037 | 92.84 |
| | 0.0457 | 0.0061 | 86.65 |
| CleanGreen Chrome | 0.0862 | 0.0074 | 91.42 |
| | 0.0594 | 0.0065 | 89.06 |
| | 0.0864 | 0.0046 | 94.68 |
| Washroom Chrome | 0.0709 | 0.0085 | 88.01 |

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|-----------------------|--------|--------|-------|
| | 0.0662 | 0.0103 | 84.44 |
| | 0.0590 | 0.0078 | 86.78 |
| Janitors Fiberglass | 0.1795 | 0.0196 | 89.08 |
| | 0.1798 | 0.0324 | 81.98 |
| | 0.1607 | 0.0203 | 87.37 |
| Heavy Fiberglass | 0.1600 | 0.0237 | 85.19 |
| | 0.2506 | 0.0254 | 89.86 |
| | 0.0849 | 0.0185 | 78.21 |
| CleanGreen fiberglass | 0.1192 | 0.0210 | 82.38 |
| | 0.1318 | 0.0360 | 72.69 |
| | 0.1871 | 0.0316 | 83.11 |
| Washroom fiberglass | 0.1114 | 0.0249 | 77.65 |
| | 0.1675 | 0.0239 | 85.73 |
| | 0.1530 | 0.0222 | 85.49 |

Summary:

| Substrates: | Ceramics, Fiberglass, Chrome | | | | |
|-------------------------------|------------------------------|--------|-------------|-------------------------------------|---------------|
| Contaminants: | Films, Soaps | | | | |
| Company Name: | Product Name: | Conc.: | Efficiency: | Effective: | Observations: |
| Environmental Care and Share | Janitors Answer | 100 | 88.78 | <input checked="" type="checkbox"/> | |
| Environmental Care and Share | Heavy Duty Cleaner Answer | 100 | 88.65 | <input checked="" type="checkbox"/> | |
| Environmental Care and Share | Clean-N-Green | 100 | 88.29 | <input checked="" type="checkbox"/> | |
| Rochester Midland Corporation | Washroom Cleaner | 12.5 | 87.19 | <input checked="" type="checkbox"/> | |

Conclusion:

All three submitted products had overall average efficiencies greater than 85% and would be considered effective based on the SSL testing methodology.