

CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2021
 DateRun: 06/08/2021
 Experimenters: Ross Goding, Edward Judge
 ClientType: Lab
 ProjectNumber: Project #4
 Substrates: Ceramics, Plastic, Chrome
 PartType: Coupon
 Contaminants: Soaps
 Cleaning Methods: Manual Wipe
 Analytical Methods: Gravimetric, Visual

Purpose: To test the effectiveness of Pine Sol Multi-Surface Cleaner in the removal of Bathroom Soil from various substrates

Experimental Procedure: A Pine Sol Multi-Surface Cleaner solution was created by mixing 1 part solution with 64 parts water. Then, 3 coupons of each substrate (ceramic, chrome, plastic) were collected and initial weights were taken. Bathroom Soil was applied to each coupon and allowed to air dry for 24 hours. After the 24 hour dry time, the weights of the newly contaminated coupons were measured. All coupons were placed into a Gardner-scrub Abrasion Tester machine. Wypall cleaning cloths were attached to each of the 3 cleaning blocks used for the test. Each Wypall cloth and all coupons received 2 sprays of the Pine Sol Multi-Surface Cleaner solution and the Gardner-scrub Abrasion Tester was run for 20 repetitions, simulating 20 manual wipes. Once cleaning concluded, the cleaned coupons were allowed to air dry for 24 hours. After 24 hours, the weights of the cleaned coupons were measured.

Results:

| Cleaner | Substrate | Initial wt of cont. | Final wt of cont. | %Cont Removed | % AVG | % Overall |
|--------------------------------|-----------|---------------------|-------------------|---------------|-------|-----------|
| Pine Sol Multi-Surface Cleaner | Ceramic | 0.0889 | 0.0085 | 90.44 | 81.31 | 87.64 |
| | | 0.1334 | 0.0132 | 90.10 | | |
| | | 0.1067 | 0.0564 | 47.14 | | |
| | Chrome | 0.1311 | 0.0032 | 97.56 | 91.73 | |
| | | 0.0750 | 0.0087 | 88.40 | | |
| | | 0.0724 | 0.0078 | 89.22 | | |
| | Plastic | 0.0596 | 0.0077 | 87.08 | 89.89 | |
| | | 0.0833 | 0.0087 | 89.56 | | |
| | | 0.0791 | 0.0055 | 93.05 | | |

Summary:

| | | | | | | |
|----------------------|----------------------|---------------------------|--------------------|-------------------------------------|---|--|
| Substrates: | | Ceramics, Plastic, Chrome | | | | |
| Contaminants: | | Soaps | | | | |
| Company Name: | Product Name: | Conc.: | Efficiency: | Effective: | Observations: | |
| Clorox Company | Pine Sol | 1/64 | 87.64 | <input checked="" type="checkbox"/> | Pine Sol was effective in the removal of Bathroom Soil from various substrates. | |

Conclusion:

Pine Sol Multi-Surface Cleaner was effective in removing Bathroom Soil from ceramic, chrome, and plastic substrates.