

# CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2016

DateRun: 11/29/2016

Experimenters: Alicia McCarthy, Josephine Garfield

ClientType: Cleaner Manufacturer

ProjectNumber: Project #9

Substrates: Aluminum, Ceramics, Plastic

PartType: Coupon

Contaminants: Films, Soaps

Cleaning Methods: Manual Wipe

Analytical Methods: Gravimetric

Purpose: To evaluate how efficiently the soil is removed using the Mineral Shock products compared to Lysol Power Bathroom Cleaner.

Experimental Procedure: Nine ceramic coupons, nine plastic coupons, and nine chrome plated aluminum coupons were weighed to get their initial weights. Then they were separated into threes for each cleaner that would be tested. Then half a gram of bathroom soil was applied to each coupon, and the soil was allowed to dry for twenty-four hours. The dirty weights were then taken. Then the ceramic coupons for the first cleaner were placed in the abrasion testing machine for 30 seconds. The process was then repeated for the plastic and chrome plated aluminum coupons. Then the same process was done for the second and third cleaners. The coupons were then allowed to dry fully, and the final weights were taken.

Results: Below are the results of the experiment. Cleaner 1 indicates Mineral Shock 1125 G, cleaner 2 indicates Mineral Shock 1124 G, and cleaner 3 indicates the Lysol Power Bathroom Cleaner. Substrate A indicates the ceramic, B indicates the plastic, and C indicates the chrome plated aluminum.

| Cleaner | Sub | Initial wt | Final wt | % Removed |
|---------|-----|------------|----------|-----------|
| 1       | A   | 0.2348     | 0.0602   | 74.36     |
| 1       | A   | 0.2318     | 0.0469   | 79.77     |
| 1       | A   | 0.2296     | 0.0812   | 64.63     |
| 1       | B   | 0.2395     | 0.0315   | 86.85     |
| 1       | B   | 0.2281     | 0.0334   | 85.36     |
| 1       | B   | 0.3016     | 0.0424   | 85.94     |
| 1       | C   | 0.2272     | 0.0416   | 81.69     |
| 1       | C   | 0.2330     | 0.0404   | 82.66     |
| 1       | C   | 0.2289     | 0.0437   | 80.91     |
| 2       | A   | 0.2240     | 0.0819   | 63.44     |
| 2       | A   | 0.2415     | 0.0713   | 70.48     |
| 2       | A   | 0.2258     | 0.0785   | 65.23     |
| 2       | B   | 0.2108     | 0.0170   | 91.94     |
| 2       | B   | 0.2175     | 0.0317   | 85.43     |
| 2       | B   | 0.2116     | 0.0442   | 79.11     |
| 2       | C   | 0.2455     | 0.0659   | 73.16     |
| 2       | C   | 0.2284     | 0.1312   | 42.56     |
| 2       | C   | 0.2314     | 0.1203   | 48.01     |
| 3       | A   | 0.2370     | 0.0451   | 80.97     |
| 3       | A   | 0.2306     | 0.0506   | 78.06     |
| 3       | A   | 0.2181     | 0.0140   | 93.58     |
| 3       | B   | 0.2226     | 0.0212   | 90.48     |
| 3       | B   | 0.2207     | 0.0545   | 75.31     |
| 3       | B   | 0.2210     | 0.0206   | 90.68     |
| 3       | C   | 0.2283     | 0.0559   | 75.51     |
| 3       | C   | 0.2290     | 0.0501   | 78.12     |
| 3       | C   | 0.2315     | 0.0516   | 77.71     |

Summary:

|                      |                             |               |                    |                   |                      |
|----------------------|-----------------------------|---------------|--------------------|-------------------|----------------------|
| <b>Substrates:</b>   | Aluminum, Ceramics, Plastic |               |                    |                   |                      |
| <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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|                   |                        |     |       |                                     |  |
|-------------------|------------------------|-----|-------|-------------------------------------|--|
| EnviroX LLC       | Mineral Shock 1125 G   | 100 | 80.23 | <input checked="" type="checkbox"/> |  |
| EnviroX LLC       | Mineral Shock 1124 G   | 100 | 68.81 | <input type="checkbox"/>            |  |
| Reckitt Benckiser | Lysol Bathroom Cleaner | 100 | 82.27 | <input checked="" type="checkbox"/> |  |

Conclusion:

The results of the experiment showed that the Mineral Shock 1125G, and Lysol Power Cleaners were comparative to each other. The 1124 G had a lower overall average.