# CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2023

DateRun: 12/10/2023

Experimenters: Amelia Wagner

ClientType:

ProjectNumber: Project #1

Substrates: Painted metal

PartType: Coupon

Contaminants: DCC-17

Cleaning Methods: Manual Wipe

Analytical Methods: Gravimetric

Purpose: To evaluate the effectiveness of the client's degreasing product compared to other degreasing products on the market.

Experimental Procedure: Two products were tested; Formula 409, and KH-7 (client's product). A total of six coupons were used, three per cleaner, were weighed. The coupons were then soiled with DCC-17 soil. About 0.5 grams of the soil was applied to each coupon by using a swab to apply the soil in a line down the center of the coupon. The weight of the soiled coupons were recorded. Three coupons at a time were then placed in the Gardner Straight Line Washability Unit. Wypall cleaning cloths were attached to the cleaning block used for the test. Each Wypall cloth and all coupons received two sprays of the cleaner (2.5 ml total), and the SLW unit was run for 20 cycles (Equivalent to 30 seconds of cleaning). Final weights were taken after air drying at room temperature.

Results:

| Cleaner | Initial wt of cont. | Final wt of cont. | %Cont Removed | % AVG |
|---|---|---|---|---|
| Formula 409 | 0.1041 | 0.0015 | 98.56 | 97.75 |
| | 0.0491 | 0.0023 | 95.32 | |
| | 0.0809 | 0.0005 | 99.38 | |
| KH 7 | 0.0408 | 0.0064 | 84.31 | 84.76 |
| | 0.0861 | 0.0115 | 86.64 | |
| | 0.0492 | 0.0082 | 83.33 | |

Summary:

| **Substrates:** | Painted metal | | | | |
|---|---|---|---|---|---|
| **Contaminants:** | DCC-17 | | | | |
| **Company Name:** | **Product Name:** | **Conc.:** | **Efficiency:** | **Effective:** | **Observations:** |
| Clorox Company | Formula 409 All Purpose Cleaner | RTU | 97.75 | ☑ | |
| KH Lloreda SA | KH 7 Super Degreaser | RTU | 84.76 | ☑ | |

Conclusion: Both products were effective in removing DCC17 soil from painted metal, however the Formula 409 did perform better than the KH-7