# CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2009

DateRun: 02/24/2009

Experimenters: Johanna Oviedo

ClientType: Lab

ProjectNumber: Project #1

Substrates: Aluminum

PartType: Coupon

Contaminants: Buffing/Polishing Compounds

Cleaning Methods: Immersion/Soak

Analytical Methods: Gravimetric

Purpose: To remove buffing compound from aluminum using immersion cleaning.

Experimental Procedure: Basic cleaning performance testing was conducted using ASTM G122 as the bases for cleaning.

Products were selected based on the compatibility of substrate and for removal of the contaminant. Ten percent concentrations were used and heated the samples at 130F. The coupons were immersed in a product for 5 minutes, rinsed in tap water at 120 F and dried using compressed air at room temperature. Coupons were coated with the buffing compound contaminant using a handheld swab and allowed to dry for 120 minutes at room temperature. The contaminated coupons were weighed again to determine the amount of soil added. After cleaning process, the final weights were recorded, efficiencies were calculated and recorded.

Results:

| Cleaner | Initial Wt. | Final Wt. | % Removed |
|---|---|---|---|
| Cleaner #10 | 0.0883 | 0.0750 | 15.06 |
| | 0.0693 | 0.0350 | 49.49 |
| | 0.1100 | 0.1000 | 9.09 |
| | | | |
| Green Works All Purpose | 0.0323 | 0.0306 | 5.26 |
| | 0.0601 | 0.0565 | 5.99 |
| | 0.0361 | 0.0332 | 8.03 |
| | | | |
| Heavy Duty Cleaner | 0.0695 | 0.0649 | 6.62 |
| | 0.1183 | 0.1000 | 15.47 |
| | 0.1135 | 0.0754 | 33.57 |
| | | | |
| Clorox Kitchen Cleaner | 0.0440 | 0.0268 | 39.09 |
| | 0.0963 | 0.0385 | 60.02 |
| | 0.0996 | 0.0780 | 21.69 |

Summary:

| **Substrates:** | Aluminum |
|---|---|
| **Contaminants:** | Buffing/Polishing Compounds |

| Company Name: | Product Name: | Conc.: | Efficiency: | Effective: | Observations: |
|---|---|---|---|---|---|
| Sky Products Company Inc | Cleaner #10 | 10 | 24.55 | ☐ | |
| Clorox Company | Green Works Multi-Surface Cleaner | 10 | 6.43 | ☐ | |
| Scout Systems | Scout Heavy Duty | 10 | 18.55 | ☐ | |
| Clorox Company | Clorox Kitchen Cleaner | 10 | 40.27 | ☐ | |

Conclusion: No product removed over 85% of the buffing compound from the aluminum coupons using immersion cleaning.