# CLEANING LABORATORY EVALUATION SUMMARY

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|---|---|
| SCL #: | 2008 |
| DateRun: | 06/16/2008 |
| Experimenters: | Shweta Bansal |
| ClientType: | Lab |
| ProjectNumber: | Project #1 |
| Substrates: | Stainless Steel |
| PartType: | Coupon |
| Contaminants: | Oil |
| Cleaning Methods: | Ultrasonics |
| Analytical Methods: | Gravimetric |
| Purpose: | To remove maintenance soil from stainless steel using ultrasonic cleaning |
| Experimental Procedure: | Basic cleaning performance testing was conducted using ASTM G122 as the bases for cleaning.<br>Products were selected based on the compatibility of substrate and for removal of the contaminant. Five percent concentrations were used and heated the samples at 104 F. The coupons were cleaned in a product for 20 minutes using ultrasonic cleaning, rinsed with tap water at 105 F and dried at room temperature using compressed air blow off. Coupons were coated with used maintenance soil using a handheld swab and allowed to dry for 20 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 |
|---|---|---|---|
| Inproclean 3800 | | | |
| | 0.1008 | 0.0188 | 81.35 |
| | 0.1001 | 0.0128 | 87.21 |
| | 0.0943 | 0.0187 | 80.17 |
| Polyspray Jet 790 XS | | | |
| | 0.0926 | 0.1061 | -14.58 |
| | 0.1650 | 0.0592 | 64.12 |
| | 0.1280 | 0.0211 | 83.52 |
| Micro 90 | | | |
| | 0.0781 | 0.0189 | 75.80 |
| | 0.0975 | 0.0442 | 54.67 |
| | 0.1504 | 0.0272 | 81.91 |
| Shopmaster LpH | | | |
| | 0.1253 | 0.0643 | 48.68 |
| | 0.1129 | 0.0957 | 15.23 |
| | 0.1067 | 0.0457 | 57.17 |
| BG Solve 717 | | | |
| | 0.1062 | 0.0228 | 78.53 |
| | 0.0995 | 0.0515 | 48.24 |
| | 0.1066 | 0.1016 | 4.69 |
| Hurrisafe 9450 | | | |
| | 0.1322 | 0.0587 | 55.60 |
| | 0.1010 | 0.0634 | 37.23 |
| | 0.1070 | 0.0698 | 34.77 |
| Daraclean 282 GF | | | |
| | 0.1254 | 0.0749 | 40.27 |
| | 0.1126 | 0.0809 | 28.15 |
| | 0.0970 | 0.0527 | 45.67 |

Summary:

| **Substrates:** | Stainless Steel | | | | |
|---|---|---|---|---|---|
| **Contaminants:** | Oil | | | | |
| **Company Name:** | **Product Name:** | **Conc.:** | **Efficiency:** | **Effective:** | **Observations:** |

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|---|---|---|---|---|---|
| Oakite Products | Inproclean 3800 | 5 | 82.91 | ☐ | |
| US Polychem Corporation | Polyspray Jet 790 XS | 5 | 44.35 | ☐ | |
| International Products Corporation | Micro 90 Conc. | 5 | 70.79 | ☐ | |
| Buckeye International | Shopmaster LPH | 5 | 40.36 | ☐ | |
| BioGenesis Enterprises Inc | BG Solv 717 Ink & Graffiti Cleaner | 5 | 43.82 | ☐ | |
| PCI of America | Hurrisafe 9450 | 5 | 44.27 | ☐ | |
| Magnaflux | Daraclean 282 GF | 5 | 38.03 | ☐ | |

Conclusion: No product removed over 85%. Inproclean 3800 removed about 83%.