# CLEANING LABORATORY EVALUATION SUMMARY

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|---|---|
| SCL #: | 2004 |
| DateRun: | 12/09/2004 |
| Experimenters: | Jason Marshall |
| ClientType: | General |
| ProjectNumber: | Project #1 |
| Substrates: | Stainless Steel |
| PartType: | Coupon |
| Contaminants: | Oil, Starch |
| Cleaning Methods: | Immersion/Soak |
| Analytical Methods: | Gravimetric |
| Purpose: | To evaluate client's current cleaner under laboratory conditions. |
| Experimental Procedure: | The product was diluted with DI water to client used concentration. The product was then heated to 130 F on a hot plate. |
| | Three preweighed stainless steel coupons were coated with the supplied cotton seed oil/starch mix and allowed to sit for 24 hours. Coupons were then weighed a second time to determine the amount of soil that was added. Three coupons were cleaned in each product for five minutes using stir bar agitation. Cleaning was followed by a 15 second rinse in a tap water bath at 120 F and air blow off for 30 seconds at room temperature. Once dry, coupons were weighed a third time and efficiencies were calculated for each product tested. |
| Results: | The Liquid Chembrite removed less oil under the laboratory setting then all but one of the alternative products tested. The table below lists the amount of soil added, the amount remaining and the percent removed for each coupon cleaned. The average efficiencies for the alternatives are also included. |

| Cleaner | Initial wt | Final wt | % Removed |
|---|---|---|---|
| Liquid Chembrite | 0.1845 | 0.0496 | 73.12 |
| | 0.3053 | 0.0226 | 92.60 |
| | 0.4742 | 0.0179 | 96.23 |

Ave Efficiency from Trial 1

| Product | Ave Efficiency from Trial 1 |
|---|---|
| H2Orange2 | 74.31 |
| SC Oven & Grill | 93.73 |
| VPW SC 1000 | 96.98 |
| Ecco Commercial | 98.08 |
| Organic Cleaner/ Degreaser | 96.13 |
| Super H2O2 | 96.18 |

Summary:

| Substrates: | Stainless Steel | | | | | |
|---|---|---|---|---|---|---|
| **Contaminants:** | Oil, Starch | | | | | |
| **Company Name:** | **Product Name:** | **Conc.:** | **Efficiency:** | **Effective:** | **Observations:** | |
| Rochester Midland Corporation | Liquid Chembrite | 3 | 87.31 | ☑ | | |

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| Conclusion: | The supplied product will also be evaluated on coupons that have been contaminated for one week at the client facility. |