

CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2004
 DateRun: 02/02/2004
 Experimenters: Dave Hout
 ClientType: Lab
 ProjectNumber: Project #1
 Substrates: Stainless Steel
 PartType: Coupon
 Contaminants: Oil
 Cleaning Methods: Immersion/Soak
 Analytical Methods: Gravimetric

Purpose: Laboratory evaluations of alternative cleaning products

Experimental Procedure: Basic cleaning performance testing was conducted using ASTM G122 as the bases for cleaning. Six products were heated to 130 F on a hot plate and two products were used at full strength. Twenty-four preweighed coupons were coated with Oil - Mineral Oil (8012-95-1) and allowed to dry for a half an hour and reweighed. Three coupons were cleaned in each solution for 5 minutes using stir-bar-agitation, rinsed in a tap water bath for 15 seconds at 120 F and dried using air blow off for 30 seconds at 68 F. Coupons were allowed to dry for a half an hour and then reweighed a final time. Efficiencies were calculated.

Results:

Summary:

| Substrates: | Stainless Steel | | | | |
|--------------------------------|-------------------------------------|---------------|--------------------|-------------------------------------|----------------------|
| Contaminants: | Oil | | | | |
| Company Name: | Product Name: | Conc.: | Efficiency: | Effective: | Observations: |
| BetzDearborne Laboratories Inc | Custom Clean N CC 2278 | 100 | 89.96 | <input checked="" type="checkbox"/> | |
| Chemtronics Inc | Super Bio Wash | 100 | 87.87 | <input checked="" type="checkbox"/> | |
| Buckeye International | Work Out | 5 | 77.95 | <input type="checkbox"/> | |
| Delta Omega Technologies Ltd | Attar D(R3) | 5 | 93.98 | <input checked="" type="checkbox"/> | |
| Chemkleen International Inc. | CT 1 Multipurpose Cleaner | 5 | 94.65 | <input checked="" type="checkbox"/> | |
| Equinox Products | Natural Solutions | 5 | 99.11 | <input checked="" type="checkbox"/> | |
| Hurri Kleen Corportion | HurriSafe - Hot Immersion Degreaser | 5 | 97.40 | <input checked="" type="checkbox"/> | |
| Heatbath Corporation | MultiKleen LX 1573 | 5 | 98.13 | <input checked="" type="checkbox"/> | |

Conclusion: Seven out of the eight products were effective at an efficiency rate of over 89%