

CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2002

DateRun: 01/11/2002

Experimenters: Heidi Wilcox

ClientType: Lab

ProjectNumber: Project #1

Substrates: Aluminum

PartType: Coupon

Contaminants: Lubricating/Lapping Oils

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.
Cleaning: 5 min Immersion cleaning with stir-bar agitation @ 120 F
Rinsing: 1/2 min, manual, in 102 F water (tap)
Drying : 1 min with heat gun @ 500F
Contaminant: Cook's Ind Lubricants (Elf Lubricants North America Inc)
Cool 5

Results: Low Foam: This cleaner looked to almost bleach the coupons. It either thoroughly cleaned the coupon of all background and newly added contaminants or it reacted with the aluminum itself.

Summary:

| Substrates: | | Aluminum | | | |
|------------------------------------|-------------------------------|--------------------------|-------------|-------------------------------------|---------------|
| Contaminants: | | Lubricating/Lapping Oils | | | |
| Company Name: | Product Name: | Conc.: | Efficiency: | Effective: | Observations: |
| Kleer Flo Company | Grease Off 2 | 5 | 99.23 | <input checked="" type="checkbox"/> | |
| Valtech Corporation | Valtron SP 2201 | 5 | 99.64 | <input checked="" type="checkbox"/> | |
| Valtech Corporation | Valtron SP 2200 | 5 | 99.98 | <input checked="" type="checkbox"/> | |
| Permatex Industrial Corporation | Natural Blue | 5 | 97.43 | <input checked="" type="checkbox"/> | |
| International Products Corporation | LF 2100 (Liquid Foam Cleaner) | 5 | 106.73 | <input type="checkbox"/> | |
| US Polychem Corporation | Polychem PW 147 | 5 | 82.42 | <input type="checkbox"/> | not effective |

Conclusion: 4 of the 6 cleaners were effective. Perfect Way 147 (82.42 ave % removal). LF-2100 had an average % removal of 106.73. The coupons looked almost bleached with a line where the contaminant and cleaner had been used.