

# CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2002

DateRun: 01/15/2002

Experimenters: Heidi Wilcox

ClientType: Lab

ProjectNumber: Project #1

Substrates: Stainless Steel

PartType: Coupon

Contaminants: Inks

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: ITW, Dykem Corp, Ink, Steel Blue - DX - 100  
CAS#'s 64175, 12386

Results: None of these cleaners were effective on the dried ink contaminant. The LF 2100 was especially ineffective, it seems to react with the ink and deposit an oily or greasy substance onto the coupon, increasing its weight dramatically. LF: This cleaner reacted w/ the ink, changing its color from deep blue-green to purple greasy/oily film. After cleaning the ink never dried, it stayed tacky or wet. Gravimetric analysis showed there was a significant increase in weight.

Summary:

| <b>Substrates:</b>                 |  | Stainless Steel               |        |             |                          |               |
|------------------------------------|--|-------------------------------|--------|-------------|--------------------------|---------------|
| <b>Contaminants:</b>               |  | Inks                          |        |             |                          |               |
| Company Name:                      |  | Product Name:                 | Conc.: | Efficiency: | Effective:               | Observations: |
| Kleer Flo Company                  |  | Grease Off 2                  | 5      | -6.99       | <input type="checkbox"/> |               |
| Valtech Corporation                |  | Valtron SP 2201               | 5      | -10.39      | <input type="checkbox"/> |               |
| Valtech Corporation                |  | Valtron SP 2200               | 5      | -8.98       | <input type="checkbox"/> |               |
| Permatex Industrial Corporation    |  | Natural Blue                  | 5      | 3.06        | <input type="checkbox"/> |               |
| International Products Corporation |  | LF 2100 (Liquid Foam Cleaner) | 5      | -141.14     | <input type="checkbox"/> |               |
| US Polychem Corporation            |  | Polychem PW 147               | 5      | 15.15       | <input type="checkbox"/> |               |

Conclusion: