

# CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2003  
 DateRun: 03/31/2003  
 Experimenters: Jason Marshall  
 ClientType: Lab  
 ProjectNumber: Project #1  
 Substrates: Aluminum  
 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: 30 seconds air blow off, 68 F  
 Contaminant: Sheetfeed Offset Inks Super Tech Dense Black AD 2340

Results:

Summary:

| <b>Substrates:</b>                | Aluminum                              |               |                    |                                     |                      |
|-----------------------------------|---------------------------------------|---------------|--------------------|-------------------------------------|----------------------|
| <b>Contaminants:</b>              | Inks                                  |               |                    |                                     |                      |
| <b>Company Name:</b>              | <b>Product Name:</b>                  | <b>Conc.:</b> | <b>Efficiency:</b> | <b>Effective:</b>                   | <b>Observations:</b> |
| Florida Chemical Company          | Citrus Burst 7                        | 100           | 95.54              | <input checked="" type="checkbox"/> |                      |
| Florida Chemical Company          | D-Limonene                            | 100           | 99.95              | <input checked="" type="checkbox"/> |                      |
| Brulin Corporation                | Nature Sol 100                        | 100           | 100.17             | <input checked="" type="checkbox"/> |                      |
| Twin Rivers Technologies          | Methyl Ester 1618                     | 100           | -59.85             | <input type="checkbox"/>            |                      |
| AG Environmental Products         | Canola Gold CE110                     | 100           | 44.24              | <input type="checkbox"/>            |                      |
| AG Environmental Products         | Soy Gold 1000                         | 100           | 52.59              | <input type="checkbox"/>            |                      |
| AG Environmental Products         | Soy Gold 2000                         | 100           | 49.13              | <input type="checkbox"/>            |                      |
| AG Environmental Products         | Soy Clear 1500                        | 100           | 68.25              | <input type="checkbox"/>            |                      |
| United Laboratories International | United 2002 Harvest Gold              | 100           | 68.71              | <input type="checkbox"/>            |                      |
| Vertec BioSolvents                | VertecBio Gold Unscented Part Cleaner | 100           | 50.10              | <input type="checkbox"/>            |                      |
| EcoLink                           | Vortex                                | 100           | 99.91              | <input type="checkbox"/>            |                      |
| Finger Lakes Chemical             | 2-22 D Limonene Industrial Cleaner    | 100           | 13.11              | <input type="checkbox"/>            |                      |

Conclusion: