

# CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2002  
 DateRun: 03/15/2002  
 Experimenters: Purav Dave  
 ClientType: Lab  
 ProjectNumber: Project #1  
 Substrates: Stainless Steel  
 PartType: Coupon  
 Contaminants: Latex binder  
 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 at 120 F with stir-bar agitation.  
 Rinsing: 1/2 min. manual with water at 120 F  
 Drying: 1 min. with heat gun at 500 F  
 Contaminant: Latex Binder Mix  
 Cas #: 9016-45-9, 79-06-1, 7664-41-7, 924-42-5, 50-00-0, 1333-86-4, 57-55-6, 7732-18-5  
 floroacrylate copolymer emulsion, Linear alkyl benzene sulphonate

Results: Observation:  
 1. Cleaning Latex Binder with DS-108-Solvent big pieces of binder were removed as compared to the other cleaners and the solvent remained on the coupons even after rinsing which led to the increase in the weight.  
 2. There was no removal of binder by Tarksol HTF-60. Instead, there were pockets formed which retained the cleaner which led to tremendous increase in weight.

Summary:

| <b>Substrates:</b>                | Stainless Steel      |        |             |                                     |               |
|-----------------------------------|----------------------|--------|-------------|-------------------------------------|---------------|
| <b>Contaminants:</b>              | Latex binder         |        |             |                                     |               |
| Company Name:                     | Product Name:        | Conc.: | Efficiency: | Effective:                          | Observations: |
| Chemical Technologies             | Green Thunder        | 5      | 80.59       | <input type="checkbox"/>            |               |
| CRC Industries                    | Complex Blue         | 5      | 65.29       | <input type="checkbox"/>            |               |
| United Laboratories International | United 450 All Clear | 5      | 95.06       | <input checked="" type="checkbox"/> |               |
| AJ Associates                     | Dynadet              | 100    | -46.17      | <input type="checkbox"/>            |               |
| Tarksol Inc                       | Tarksol HTF 60       | 100    | -509.24     | <input type="checkbox"/>            |               |
| EnviroSan Products Ltd            | Solution 2000        | 5      | 70.13       | <input type="checkbox"/>            |               |
| Heatbath Corporation              | Alu-Kleen 36         | 5      | 69.28       | <input type="checkbox"/>            |               |

Conclusion: Only United 450 all clear was effective.