

# CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2002

DateRun: 10/16/2002

Experimenters: Heidi Wilcox

ClientType: Lab

ProjectNumber: Project #1

Substrates: Aluminum

PartType: Coupon

Contaminants: Adhesive

Cleaning Methods: Ultrasonics

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.  
 Degassing: Degassing the solution by keeping solutions in ultrasonic crest for 5 min at 120 F.  
 Cleaning: Ultrasonic for 5 min. at 120 F.  
 Rinsing: NONE  
 Drying: wiping with paper towels, 10 passes to remove adhesive  
 Contaminant: Aroset PS 8078, Ashlan Chemical (Lot# 071901). Very thick adhesive  
 CAS#'s 141-78-6 Ethyl Acetate, 142-82-5 Heptane, 67-63-0 Isopropanol

## Results:

### Summary:

| <b>Substrates:</b>        |  | Aluminum |             |                                     |  |  |
|---------------------------|--|----------|-------------|-------------------------------------|--|--|
| <b>Contaminants:</b>      |  | Adhesive |             |                                     |  |  |
| Company Name:             | Product Name:                          | Conc.:   | Efficiency: | Effective:                          | Observations:  |  |
| AG Environmental Products | Soy Gold 1100                          | 100      | 99.41       | <input checked="" type="checkbox"/> | Sticky after ultrasonics. Removal due to wiping, 10 times with paper towel.            |  |
| Phase III Inc             | Biodegradable Paint & Adhesive Remover | 100      | 28.09       | <input type="checkbox"/>            |  |  |
| EcoLink                   | Rip Tide                               | 10       | 99.57       | <input checked="" type="checkbox"/> | Adhesive had mushy texture. Very easy to remove by wiping. 5 wipes to remove adhesive. |  |
| Pentone Corporation       | Citrikleen XPC                         | 100      | 99.66       | <input checked="" type="checkbox"/> | very easy removal with wipe/scrape   |  |
| Metabolix Inc             | Metabolix E3HB                         | 100      | 37.32       | <input type="checkbox"/>            |  |  |
| Vertec BioSolvents        | VertecBio Gold Unscented Part Cleaner  | 100      | 81.41       | <input type="checkbox"/>            | More wipes or scraping would have removed more   |  |

Conclusion: This is a very tough adhesive. Four of the cleaners were successful in working on the adhesive and loosening or softening it making removal by wiping or scraping a possibility. This adhesive does not respond well to low flow water rinsing and air drying or blow off.