

CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2002

DateRun: 09/10/2002

Experimenters: Heidi Wilcox

ClientType: Lab

ProjectNumber: Project #1

Substrates: Stainless Steel

PartType: Coupon

Contaminants: Cutting/Tapping Fluids

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 2 min at 120 F.
 Cleaning: Ultrasonic for 2 min. at 120 F.
 Rinsing: 1/2 min. manual with water at 120 F.
 Drying: 1 min with heat gun @ 500F
 Contaminant: Steco Corp, Tap Magic Protap (cutting fluid)
 CAS# 112-80-1(> 75%) Aliphatic organic acid
 112-62-9 (<15%) Aliphatic organic ester

Results:

Summary:

| | | | | | | |
|---------------------------|----------------------------------|------------------------|--------------------|-------------------------------------|----------------------|--|
| Substrates: | | Stainless Steel | | | | |
| Contaminants: | | Cutting/Tapping Fluids | | | | |
| Company Name: | Product Name: | Conc.: | Efficiency: | Effective: | Observations: | |
| EcoLink | Bulldog | 5 | 96.95 | <input checked="" type="checkbox"/> | | |
| Innovative Organics Inc | Amberclean Q3 | 5 | 91.30 | <input checked="" type="checkbox"/> | | |
| AG Environmental Products | Soy Clear 1500 | 100 | 93.93 | <input checked="" type="checkbox"/> | | |
| AG Environmental Products | Canola Gold CE110 | 100 | 88.07 | <input checked="" type="checkbox"/> | | |
| Phase III Inc | California Parts Washer Solution | 5 | 92.97 | <input checked="" type="checkbox"/> | | |
| PCI of America | Hurrisafe 9575 | 5 | 90.15 | <input checked="" type="checkbox"/> | | |

Conclusion: Heated ultrasonics did not change efficiency significantly.