

CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2003
DateRun: 09/09/2003
Experimenters: Jason Marshall
ClientType: Lab
ProjectNumber: Project #1
Substrates: Aluminum
PartType: Coupon
Contaminants: Coatings
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. Five products were used at full strength, heated to 120 F on a hot plate. Fifteen preweighed coupons were coated with Quaker Chemical Ferrocoat 5815-LVO protective coating and allowed to dry overnight and reweighed. Three coupons were cleaned in each solution for 5 minutes using stir-bar-agitation, rinsed in a tap water bath for 15 seconds at 120 F and dried using air blow off for 30 seconds at 68 F. Coupons were allowed to dry overnight and then reweighed a final time. Efficiencies were calculated.
Note: Bio T Foam Plus was sprayed onto coupons at room temperature and allowed to sit for 5 minutes. The cleaner was then wiped clean.

Results: Only one product removed over 85% of the coating. The other four may be effective with longer cleaning times or the use of additional mechanical energy.

Summary:

| Substrates: | Aluminum | | | | | |
|------------------------------------|----------|---------------------------|--------|-------------|-------------------------------------|---------------|
| Contaminants: | Coatings | | | | | |
| Company Name: | | Product Name: | Conc.: | Efficiency: | Effective: | Observations: |
| AW Chesterton | | 278 Super Solv | 100 | 90.32 | <input checked="" type="checkbox"/> | |
| Bio Chem Systems | | Bio T Foam Plus | 100 | 79.54 | <input type="checkbox"/> | |
| Invista S.a.r.l | | Flexisolv DBE 3 ester | 100 | 65.35 | <input type="checkbox"/> | |
| Eastern Color and Chemical Company | | Ecobrite Cleaner AK | 100 | 61.45 | <input type="checkbox"/> | |
| Gemtek Products | | SC EZ Solv Safety Solvent | 100 | 75.41 | <input type="checkbox"/> | |

Conclusion: AW Chesterton was successful in removing the coating.