

CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 1998
 DateRun: 09/11/1998
 Experimenters: Jason Marshall
 ClientType: Name Plate Mfg-Etching
 ProjectNumber: Project #1
 Substrates: Aluminum
 PartType: Part
 Contaminants: None
 Cleaning Methods: Immersion/Soak
 Analytical Methods: Gravimetric, Visual, Wipe

Purpose: To compare Safety Kleene D-Greeze compatibility to AG Environmental Soy Gold 1000.

Experimental Procedure: Initial weights of 3 customer-supplied coupons were recorded. The D-Greeze was used at 100% solution and room temperature. Three coupons were placed in the cleaning chemistry. After soaking for 24 hours, the coupons were removed from the cleaner and wiped dry with a white paper towel. Observations were made during the soak and the wiping to determine if any of the paint was removed.

SUBSTRATE MATERIAL: Aluminum 3003 with paint (not to be removed)
 CONTAMINANTS: None

Results: Within 4 hours of soaking, the cleaning solution started to turn from clear to pink, indicating that some of the paint was already being removed. Wiping the coupons with the paper towel further revealed that the paint was removed during the soaking. It was also noted that the coupons had a slick feeling to them, indicating that some of the cleaner remained on the surface of the coupons. Most of this slickness was removed after the wiping was repeated. The gravimetric analysis in Table 1 shows that there was some weight increase for each of the 3 coupons. This weight gain was about the same as the Soy Gold increases.

Table 1. Gravimetric Analysis Results

| Coupon # | Initial Weight | Final Weight | Weight Gain | % Increase |
|----------|----------------|--------------|-------------|------------|
| 10 | 11.4922 | 11.5088 | 0.0166 | 0.15 |
| 11 | 11.4404 | 11.4504 | 0.01 | 0.087 |
| 12 | 11.452 | 11.4607 | 0.0087 | 0.076 |

Summary:

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|---------------------------|--|----------------------|---------------|--------------------|-------------------------------------|----------------------|
| Substrates: | | Aluminum | | | | |
| Contaminants: | | None | | | | |
| Company Name: | | Product Name: | Conc.: | Efficiency: | Effective: | Observations: |
| Transene Company, Inc. | | D Greeze 500 LO | 100 | | <input type="checkbox"/> | |
| AG Environmental Products | | Soy Gold 1000 | 100 | | <input checked="" type="checkbox"/> | |

Conclusion: It was determined that the degradation of the paint on the coupons was quicker for the D-Greeze 500 than the Soy Gold 1000. As stated in the previous report, the Soy Gold residue should be checked to see if the residue will interfere with other processes.