

CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2004
 DateRun: 05/28/2004
 Experimenters: Jason Marshall
 ClientType: Lab
 ProjectNumber: Project #1
 Substrates: Steel
 PartType: Coupon
 Contaminants: Paints
 Cleaning Methods: Vapor Degreasing
 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. Two hundred fifty milliliters of each product were used at full strength in a 4000 ml beaker and heated to its boiling point on a hot plate. Preweighed aluminum coupons were coated with the Varnish Mix [Cooper's Creek Chemicals, Cooper Black Tank Paint No 739 (64742-89-8, 8052-42-4, 108-88-3); Sherwin Williams Company, V74B2 Black Asphaltum coating (64742-89-8, 64742-88-7, 8052-42-4)] using a handheld swab. Coupons were weighed a second time to determine the amount of soil added to each coupon. Three coupons were cleaned in each solution for 5 minutes using vapor degreasing. After cooling to room temperature, the coupons were weighed a final time and efficiencies were calculated.

Results:
 Summary:

| | | | | | | |
|-------------------------------|------------------------|---------------|--------------------|-------------------------------------|----------------------|--|
| Substrates: | Steel | | | | | |
| Contaminants: | Paints | | | | | |
| Company Name: | Product Name: | Conc.: | Efficiency: | Effective: | Observations: | |
| AGA Chemical | AK 225 | 100 | 12.39 | <input type="checkbox"/> | | |
| DuPont | Vertrel CCA | 100 | -6.11 | <input type="checkbox"/> | | |
| DuPont | Vertrel MCA | 100 | -5.11 | <input type="checkbox"/> | | |
| Micro Care | Heavy Duty Degreaser C | 100 | -6.85 | <input type="checkbox"/> | | |
| Micro Care | Flux Remover C | 100 | -4.91 | <input type="checkbox"/> | | |
| 3M | HFE 7100 | 100 | -1.80 | <input type="checkbox"/> | | |
| 3M | HFE 7200 | 100 | 31.65 | <input type="checkbox"/> | | |
| Enviro Tech International Inc | Ensolv | 100 | 98.60 | <input checked="" type="checkbox"/> | | |
| Poly Systems USA Inc | Solvon Kreussler IP | 100 | 97.54 | <input checked="" type="checkbox"/> | | |
| Dow Chemical Company | OS 10 | 100 | 10.57 | <input type="checkbox"/> | | |
| Dow Chemical Company | OS 20 | 100 | 3.06 | <input type="checkbox"/> | | |
| Dow Chemical Company | OS 30 | 100 | 30.68 | <input type="checkbox"/> | | |

Conclusion: Two of the twelve products removed over 85%.