

# CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2004

DateRun: 05/25/2004

Experimenters: Jason Marshall

ClientType: Lab

ProjectNumber: Project #1

Substrates: Steel

PartType: Coupon

Contaminants: Paints

Cleaning Methods: Manual Wipe

Analytical Methods: Visual

Purpose: Laboratory evaluations of alternative cleaning products

Experimental Procedure: Basic cleaning performance testing was conducted using ASTM G122 as the bases for cleaning. Fifteen solvent-based products were applied to pre-painted CD mailing containers (AOL demo CDs) and wiped with a handheld swab for about a minute. Visual observations were made to determine if any paint was removed.

Results: 04-EI-PA-15-

Summary:

| <b>Substrates:</b>            | Steel                  |        |             |                                     |               |
|-------------------------------|------------------------|--------|-------------|-------------------------------------|---------------|
| <b>Contaminants:</b>          | Paints                 |        |             |                                     |               |
| Company Name:                 | Product Name:          | Conc.: | Efficiency: | Effective:                          | Observations: |
| 3M                            | HFE 7100               | 100    |             | <input type="checkbox"/>            | No removal    |
| 3M                            | HFE 7200               | 100    |             | <input type="checkbox"/>            | No removal    |
| AGA Chemical                  | AK 225                 | 100    |             | <input type="checkbox"/>            | No removal    |
| DuPont                        | Vertrel CCA            | 100    |             | <input checked="" type="checkbox"/> | Paint removal |
| DuPont                        | Vertrel MCA            | 100    |             | <input checked="" type="checkbox"/> | Paint removal |
| Micro Care                    | Flux Remover C         | 100    |             | <input checked="" type="checkbox"/> | Paint removal |
| Micro Care                    | Heavy Duty Degreaser C | 100    |             | <input checked="" type="checkbox"/> | Paint removal |
| Enviro Tech International Inc | Ensolv                 | 100    |             | <input checked="" type="checkbox"/> | Paint removal |
| Enviro Tech International Inc | Ensolv A               | 100    |             | <input checked="" type="checkbox"/> | Paint removal |
| Kyzen Corporation             | Metalnox M6960         | 100    |             | <input checked="" type="checkbox"/> | Paint removal |
| Poly Systems USA Inc          | Solvon Kreussler PB    | 100    |             | <input checked="" type="checkbox"/> | Paint removal |
| Poly Systems USA Inc          | Solvon Kreussler IP    | 100    |             | <input checked="" type="checkbox"/> | Paint removal |
| Dow Chemical Company          | OS 10                  | 100    |             | <input type="checkbox"/>            | No removal    |
| Dow Chemical Company          | OS 20                  | 100    |             | <input type="checkbox"/>            | No removal    |
| Dow Chemical Company          | OS 30                  | 100    |             | <input type="checkbox"/>            | No removal    |

Conclusion: Nine of the fifteen products removed the paint. Products will be tested using vapor degreasing.