CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2010

DateRun: 06/21/2010

Experimenters: Jason Marshall, Timothy Weil

ClientType: Cleaner Manufacturer

ProjectNumber: Project #1

Substrates: Stainless Steel, Wood

PartType: Coupon

Contaminants: Inks, Paints

Cleaning Methods: Manual Wipe

Analytical Methods: Visual

Purpose: To determine the total number of cycles needed to remove all of the ink and paint from stainless steel and wood coupons using manual cleaning

Experimental Procedure: One set of stainless steel and wood coupons were coated with Dayetek Daye Black quick dry lithographic ink using a handheld swab. A second set of stainless steel and wood coupons were coated with Barnes Group Bowman Distribution Industrial Finish Gloss Black spray paint No 24700. Coated coupons were allowed to sit for several hours for drying of applied ink/paint.

Three coupons were placed into a Gardner Straight Line Washability unit. A Kimberly-Clark Wypal reinforced paper towel was attached to the cleaning sled and soaked with 5-7 sprays of cleaning solutions. Each coupon was sprayed 7-10 times with the same cleaning solution. The cleaning unit was run until the coupons were completely cleaned or when no additional contaminant was removed from the surface (as determined by viewing the paper towel condition after at least 40 cycles). The total number of cycles were recorded.

Results: The SG21000D solvent needed the least number of total cycles for cleaning both the ink and paint from the stainless steel. None of the products removed all of the paint from the wood surfaces. Both the ink and paint left visual traces on in the grain of the wood. The end points were determined when no visual removal was present on the white paper towels. The SG21000D and the DBE had similar number of cycles required to reach the end point of cleaning. Cycle numbers for each solvent are listed in the table below.

Substrate	Contaminant	# cycles
Steel	Ink	77
		22
		35
		31
Steel	Paint	40
		21
		39
		25
Wood	Ink	100
		85
		88
		80
Wood	Paint	53
		39
		50
		37

Summary:

Substrates:	Stainless Steel, Wood				
Contaminants:	Inks, Paints				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Segetis	Segetis SG21000D	100	0.00	☐	Rank 4
Segetis	Segetis SG22002D	100	0.00	☑	Rank 1
Segetis	Segetis SG21000D	50	0.00	☐	Rank 3; 50:50 mix with SG22002D
DuPont	DBE 6	100	0.00	☑	Rank 1

Conclusion:

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The SG21000D and the DBE were the top two solvents for complete removal of the ink and paint using manual cleaning.