CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2016

DateRun: 11/01/2016

Experimenters: Carla De La Cruz, Abigail Giarrosso, Rhoda Gindi, Catherine York

ClientType: Musical Instrument

ProjectNumber: Project #3

Substrates: Brass, Stainless Steel

PartType: Coupon

Contaminants: Inks

Cleaning Methods: Manual Wipe

Analytical Methods: Visual

Purpose: To evaluate the efficiency at which Smart Solve 605 and Bio Removable Degreaser can remove ink from Stainless Steel and Brass.

Experimental Procedure: Six Stainless Steel coupons and six Brass coupons were weighed to get their initial weights. Then the middle portion of each coupon was coated in ink, and the dirty weights were taken. Three of the Stainless-Steel coupons and three of the Brass coupons were treated with the Smart Solve 605 in the abrasion machine. The coupons were cleaned in 30 second increments up to 90 seconds. The coupons were lightly patted dry to remove any extra cleaner. The process was repeated with the remaining coupons and the Bio Removable Degreaser cleaner. Finally, all of the coupons were weighed to get their final weights.

Results:

Stainless Steel			
Cleaner	Initial Wt.	Final wt.	% Removed
Smart Solve 605	0.1229	0.0052	95.77
	0.0468	0.0086	81.62
	0.0412	0.0044	89.32
Bio Removable			
Degreaser	0.0326	0.0156	52.14
	0.018	0.0013	92.78
	0.0203	0.0024	88.18
Brass			
Smart Solve 605	0.0618	0.0148	76.05
	0.1486	0.0141	90.51
	0.0812	0.0192	76.35
Bio Removable Degreaser	0.0524	0.0201	61.64
	0.0348	0.0131	62.36
	0.0224	0.0126	43.75

Summary:

Substrates:	Brass, Stainless Steel
Contaminants:	Inks

Company Name:	Product Name:	Conc.:	Efficiency:	Effective:	Observations:
United Laboratories International	Smart Solve 605	100	84.90	☑	Most of the removal occurred within the first 30 seconds of manual cleaning.(Stainless Steel)
United Laboratories International	Smart Solve 605	100	80.97	☑	Most of the removal occurred within the first 30 seconds of manual cleaning.(Brass)
Spartan Chemical Company	BioRenewables - Restroom Cleaner	100	77.70	☑	Most of the removal occurred within the first 30 seconds of manual cleaning.(Stainless steel)

CLEANING LABORATORY EVALUATION SUMMARY

Spartan Chemical Company	BioRenewables - Restroom Cleaner	100	55.92	☐	Most of the removal occurred within the first 30 seconds of manual cleaning.(Brass)
NuGeneration Technologies, LLC	FluoSolv CX	100	59.59	☐	Very little removal.

Conclusion: The results of the experiment proved to be successful. However, the Smart Solve 605 appeared to do a better job at cleaning the ink off of the coupons compared to the Bio Removable Degreaser. In the future, the Smart Solve 605 should be used to clean the ink.