CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2009

DateRun: 03/09/2009

Experimenters: Johanna Oviedo

ClientType: Lab

ProjectNumber: Project #1

Substrates: Stainless Steel

PartType: Coupon

Contaminants: Inks

Cleaning Methods: Immersion/Soak

Analytical Methods: Gravimetric

Purpose: To remove graffiti from stainless steel using immersion cleaning

Experimental Procedure: Basic cleaning performance testing was conducted using ASTM G122 as the bases for cleaning.

Products were selected based on the compatibility of substrate and for removal of the contaminant. Five percent concentrations were used and heated the samples at 130F. The coupons were immersed in a product for 5 minutes, rinsed in tap water at 120 F and dried using compressed air at room temperature. Coupons were coated with the contaminant using a handheld swab and allowed to dry for 120 minutes at room temperature. The contaminated coupons were weighed again to determine the amount of soil added. After cleaning process, the final weights were recorded, efficiencies were calculated and recorded.

Results:

Cleaner	Initial Wt.	Final Wt.	% Removed
Shopmaster	0.3151	0.0008	99.75
	0.0154	-0.0001	100.65
	0.0109	0.0057	47.71
Citranox	0.0817	0.0576	29.5
	0.0415	0.0342	17.59
	0.0197	0.0077	60.91
Coil Bright	0.1169	0.0576	50.73
	0.0465	0.0187	59.78
	0.0511	0.0208	59.3
Soy Strong	0.0157	0.008	49.04
	0.0194	0.0186	4.12
	0.0171	0.0031	81.87
Inproclean 3800	0.015	0.0106	29.33
	0.0162	0.0027	83.02
	0.0632	0.0181	71.36
Graffiti Remover	0.1507	0.0294	80.49
	0.0235	0.0034	85.53
	0.0415	0.0187	54.94
Metal Bright	0.499	0.4507	9.68
	0.2321	0.2004	13.66
	0.1772	0.1301	26.58
Phosphoric Acid Cleaner #1	0.1612	0.1597	0.93
	0.1567	0.1049	33.06
	0.0919	0.0355	61.37

Summary:

Substrates:	Stainless Steel
Contaminants:	Inks

Company Name:	Product Name:	Conc.:	Efficiency:	Effective:	Observations:
Buckeye International	Shopmaster	10	82.70	☐	
Alconox Inc	Citranox	10	36.00	☐	
Watson Technical Associates	Coil Bright	10	56.60	☐	
Spartan Chemical Company	Soy Strong	10	45.01	☐	

CLEANING LABORATORY EVALUATION SUMMARY

Oakite Products	Inproclean 3800	10	61.24	☐	
Twin Rivers Technologies	Graffiti Remover	10	73.65	☐	
Green Power	Metal Bright	10	16.64	☐	
Chemspec	Phosphoric Acid Cleaner #1	10	31.79	☐	

Conclusion: No product removed over 85% of the graffiti from stainless steel using immersion cleaning.