CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	2009
DateRun:	02/11/2009
Experimenters:	Johanna Oviedo
ClientType:	Lab
ProjectNumber:	Project #1
Substrates:	Steel
PartType:	Coupon
Contaminants:	Inks
Cleaning Methods:	Immersion/Soak
Analytical Methods:	Gravimetric
Purpose:	To remove ink from 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. Ten 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 ink 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
Sea Wash Cleaner			
	0.5090	0.1210	76.23
	0.1896	0.0748	60.55
	0.1077	0.0773	28.23
Simple Green D			
	0.2494	0.0309	87.61
	0.1389	0.0134	90.35
	0.5746	0.1027	82.13
Micro 90			
	0.2816	0.1995	29.15
	0.1753	0.1754	-0.06
	0.4178	0.4014	3.93
SC Aircraft			
	0.4232	0.2773	34.48
	0.2433	0.2392	1.69
	0.3573	0.3360	5.96
Soy Gold 1000			
	0.3248	0.3288	-1.23
	0.6573	0.4067	38.13
	0.1643	0.1227	25.32
Maxi Solv			
	0.1977	0.0794	59.84
	0.3112	0.1629	47.65
	0.7608	0.0790	89.62
SWR One			
	0.3892	0.2786	28.42
	1.1775	0.3356	71.5
	0.2693	0.0401	85.11

Summary:

Substrates:	Steel				
Contaminants:	Inks				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**

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Warren Chemical Company	Sea Wash Cleaner	10	55.00	☐	
Simple Green	Simple Green D	10	86.70	☑	
International Products Corporation	Micro 90 Conc.	10	3.93	☐	
Gemtek Products	SC Aircraft & Metal Cleaner Super Concentrate	10	5.96	☐	
AG Environmental Products	Soy Gold 1000	10	25.32	☐	
Gemtek Products	Safe Care (SC) Maxi Solv	10	89.62	☑	
SWR Corporation	SWR One	10	85.11	☑	

Conclusion: Three of the products removed more than 85% of the ink from the steel coupons using immersion cleaning.