CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	2009
DateRun:	03/23/2009
Experimenters:	Johanna Oviedo
ClientType:	Lab
ProjectNumber:	Project #1
Substrates:	Stainless Steel
PartType:	Coupon
Contaminants:	Oil
Cleaning Methods:	Immersion/Soak
Analytical Methods:	Gravimetric
Purpose:	To remove oil from painted 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 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	0.1741	0.1555	10.68
	0.29	0.1781	38.59
	0.5014	0.0778	84.48
Citranox	0.2469	0.0869	64.8
	0.2049	0.1754	14.4
	0.1287	0.0887	31.08
Coil Bright	0.1639	0.1159	29.29
	0.2923	0.1619	44.61
	0.1467	0.1181	19.5
Soy Strong	0.2716	0.1575	42.01
	0.1774	0.0985	44.48
	0.1249	0.0472	62.21
Inproclean 3800	0.5203	0.1289	75.23
	1.5274	0.0842	94.49
	0.1341	0.0659	50.86
Graffiti Remover	1.2119	0.1327	89.05
	0.9179	0.2142	76.66
	1.0591	0.188	82.25
Metal Bright	0.2171	0.1229	43.39
	0.2842	0.1176	58.62
	0.3945	0.1395	64.64
Phosphoric Acid Cleaner #1	0.5959	0.1054	82.31
	0.3677	0.1275	65.32
	0.4277	0.1348	68.48

Summary:

Substrates:	Stainless Steel

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Contaminants:	Oil				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Buckeye International	Shopmaster	10	44.58	☐	
Alconox Inc	Citranox	10	36.76	☐	
Watson Technical Associates	Coil Bright	10	31.13	☐	
Spartan Chemical Company	Soy Strong	10	49.57	☐	
Oakite Products	Inproclean 3800	10	73.52	☐	
Finger Lakes Chemical	Graffiti remover	10	82.65	☐	
Green Power	Metal Bright	10	55.55	☐	
Chemspec	Phosphoric Acid Cleaner #1	10	72.04	☐	

Conclusion: No product removed more than 85% of the oil from stainless using immersion cleaning.