CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	2009
DateRun:	03/23/2009
Experimenters:	Johanna Oviedo
ClientType:	Lab
ProjectNumber:	Project #1
Substrates:	Steel
PartType:	Coupon
Contaminants:	Greases
Cleaning Methods:	Immersion/Soak
Analytical Methods:	Gravimetric
Purpose:	To remove grease from painted steel surface 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 grease 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	0.6872	0.1721	74.96
	0.1406	0.1055	24.96
	0.1601	0.0955	40.35
Citranox	0.1146	0.0177	84.55
	0.0894	0.0277	69.02
	0.0619	0.0048	92.25
Coil Bright	0.2099	-0.0001	100.05
	0.1715	0.0535	68.80
	0.0893	0.0011	98.77
Soy Strong	0.1577	0.0262	83.39
	0.1232	0.0035	97.16
	0.1391	-0.0002	100.14
Inproclean 3800	0.0510	0.0255	50.00
	0.0696	0.0143	79.45
	0.0858	-0.0017	101.98
Graffiti Remover	0.1525	0.0869	43.02
	0.1801	0.0991	44.98
	0.0812	0.055	32.27
Metal Bright	0.1250	0.0213	82.96
	0.0832	0.0254	69.47
	0.1719	0.0998	41.94
Phosphoric Acid Cleaner #1	0.1032	0.0089	91.38
	0.0852	0.0092	89.20
	0.2260	0.0537	76.24

Summary:

Substrates:	Steel

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Contaminants:	Greases				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Buckeye International	Shopmaster	10	46.76	☐	
Alconox Inc	Citranox	10	81.94	☐	
Watson Technical Associates	Coil Bright	10	89.21	☑	
Franmar Chemical	Soy Strip Paint Stripper	10	93.56	☑	
Oakite Products	Inproclean 3800	10	77.15	☐	
Twin Rivers Technologies	Graffiti Remover	10	40.09	☐	
Green Power	Metal Bright	10	64.79	☐	
Chemspec	Phosphoric Acid Cleaner #1	10	85.61	☑	

Conclusion: Three of the eight products removed more than 85% of the grease from painted steel using immersion cleaning.