CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	2009
DateRun:	02/23/2009
Experimenters:	Johanna Oviedo
ClientType:	Lab
ProjectNumber:	Project #1
Substrates:	Alloys
PartType:	Coupon
Contaminants:	Hucker's Soil
Cleaning Methods:	Immersion/Soak
Analytical Methods:	Visual
Purpose:	To test nontoxic industrial cleaning solutions for oil removal
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 removal of foreign substance. Used 10% concentration and heated the samples at 135F. The steel coupons were immersed in a product for 5 minutes, rinsed for 30 seconds in tap water at 120F and dried in 30 seconds using compressed air is room temperature. Coupons were coated with used oil. Using a handheld swab and allowed to dry for 144 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			
	0.1187	0.0008	99.33
	0.0321	0.0095	70.40
	0.0426	0.0061	85.68
Simple Green			
	0.0951	0.0471	50.47
	0.0152	0.0022	85.53
	0.0365	0.0063	82.74
Micro 90			
	0.3525	0.1084	69.25
	0.0321	0.0081	74.77
	0.0778	0.0159	79.56
Sc Aircraft &Metal			
	0.0228	0.0088	61.40
	0.0392	0.0170	56.63
	0.0264	0.0196	25.76
Sky Gold 1000			
	0.0090	0.0028	68.89
	0.1455	0.0636	56.29
	0.3273	0.2574	21.36
Maxisolv			
	0.0351	0.0154	56.13
	0.2829	0.0612	78.37
	0.0755	0.0360	52.32
SWR One			
	0.0142	0.0014	90.14
	0.0188	0.0121	35.64
	0.0083	0.0040	51.81

Summary:

Substrates:	Alloys				
Contaminants:	Hucker's Soil				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**

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Warren Chemical Company	Sea Wash 77	10	85.14	☑	
Simple Green	Simple Green D	10	72.91	☐	
International Products Corporation	Micro 90 Conc.	10	74.53	☐	
Gemtek Products	SC Aircraft & Metal Cleaner Super Concentrate	10	47.93	☐	
AG Environmental Products	Soy Gold 1000	100	48.84	☐	
Gemtek Products	Safe Care (SC) Maxi Solv	10	62.27	☐	
SWR Corporation	SWR One	10	59.20	☐	

Conclusion: One product removed over 85% of the Hucker's soil (all-purpose janitorial soil) from alloys using immersion cleaning.