CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2007

DateRun: 05/15/2007

Experimenters: Jason Marshall, Shweta Bansal

ClientType: Metal

ProjectNumber: Project #1

Substrates: Alloys

PartType: Coupon

Contaminants: Lubricating/Lapping Oils

Cleaning Methods: Immersion/Soak

Analytical Methods: Gravimetric

Purpose: To evaluate alternative cleaners on second supplied contaminant.

Experimental Procedure: Six products from the previous trial were selected and used at full strength. The cleaning solutions were all heated to 130 F on a hot plate.

Eighteen preweighed alloy coupons were coated with the second supplied lubricant and weighed a second time to determine the amount of contaminant added to each coupon. Three coupons were immersed into each solution and cleaned for 5 minutes using stir-bar agitation. Coupons were rinsed in room temperature tap water for 15 seconds and air dried using compressed dry air for 30 seconds. A final weight was recorded, and efficiencies were calculated for each coupon cleaned.

Results: Five of the six products removed over 95% of the lubricant. Three of these removed over 99%. The table below lists the amount of soil added, the amount remaining and the efficiency for each coupon cleaned.

Cleaner	Initial wt	Final wt	% Removed
Soy Gold 1100	1.4978	0.0286	98.09
	1.5557	0.0541	96.52
	1.5184	0.0291	98.08
Solsafe 245	1.9557	0.0186	99.05
	1.9062	0.0077	99.60
	2.1998	0.0053	99.76
Shopmaster RC	2.1195	0.0117	99.45
	1.8953	0.0095	99.50
	1.2542	0.0080	99.36
DS 108	2.2218	0.0181	99.19
	1.7480	0.0167	99.04
	1.3172	0.0106	99.20
D Greeze 500 LO	2.1602	0.1368	93.67
	1.5610	0.0311	98.01
	2.0320	0.0392	98.07
SC Supersolve	1.8005	0.5534	69.26
	2.2033	0.4855	77.96
	1.8246	0.5985	67.20

Summary:

Substrates:	Alloys
Contaminants:	Lubricating/Lapping Oils

Company Name:	Product Name:	Conc.:	Efficiency:	Effective:	Observations:
AG Environmental Products	Soy Gold 1100	100	97.57	☑	
Bio Chem Systems	Solsafe 245	100	99.47	☑	
Buckeye International	Shopmaster RC	100	99.44	☑	
Dysol	DS 108 Wipe Solvent	100	99.14	☑	
Transene Company, Inc.	D Greeze 500 LO	100	96.58	☑	
Gemtek Products	SC Supersolve Safety Solvent	100	71.48	☐	

Conclusion: The five products that removed over 95% will be tested on the third supplied contaminant under the same conditions.

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