CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2008

DateRun: 01/07/2008

Experimenters: Jason Marshall

ClientType: Chemical Company

ProjectNumber: Project #1

Substrates: Aluminum

PartType: Coupon

Contaminants: Cutting/Tapping Fluids, Oil

Cleaning Methods: Immersion/Soak

Analytical Methods: Gravimetric

Purpose: To evaluate final product on four previously submitted soils as a follow up to other products tested.

Experimental Procedure: The supplied product was diluted to the five percent and heated to 135 F on a hot plate. Twelve preweighed Aluminum 6061 T6 coupons were coated with the four contaminants, three per contaminant using a handheld swab. Coupons were weighed a second time to determine the amount of cutting fluid added.

Three coupons were immersed in each solution and cleaned for five minutes using minimal stir-bar agitation. Coupons were rinsed in tap water heated to 135 F. All coupons were dried for 10 minutes in an oven at 140 F. After drying, coupons were weighed a third time and product cleaning efficiencies were calculated.

Contaminants Include:
Cinster cutting fluid
Clean Tool II lubricant
Blaser Vascomil 22 cutting fluid
Haycut SW 220 cutting fluid

Results: The supplied cleaning product was successful on all four contaminants using immersion cleaning, removing over 90% of the cutting fluids/oils within five minutes. The table below lists the amount of soil added, the amount remaining and the efficiency of the product for each coupon cleaned.

Cleaner	Initial wt	Final wt	% Removed
Cinster	0.1387	0.0020	98.56
	0.2366	0.0019	99.20
	0.1449	0.0030	97.93
Cleen Tool II	0.1185	0.0017	98.57
	0.1525	0.0013	99.15
	0.2376	0.0016	99.33
Blaser Vacomil 22	0.1611	0.0269	83.30
	0.2134	0.0044	97.94
	0.2634	0.0045	98.29
Haycut SW 220	0.3550	0.0162	95.44
	0.4734	0.0215	95.46
	0.7641	0.0238	96.89

Summary:

Substrates:	Aluminum
Contaminants:	Cutting/Tapping Fluids, Oil

Company Name:	Product Name:	Conc.:	Efficiency:	Effective:	Observations:
Simple Green	Extreme Simple Green Aircraft & Precision Cleaner	5	98.56	☑	Cinster cutting fluid
Simple Green	Extreme Simple Green Aircraft & Precision Cleaner	5	99.01	☑	Clean Tool II - lubricant
Simple Green	Extreme Simple Green Aircraft & Precision Cleaner	5	93.18	☑	Blaser Vacomil 122 - cutting fluid
Simple Green	Extreme Simple Green Aircraft & Precision Cleaner	5	95.93	☑	Haycut SW220 - cutting fluid

Conclusion:

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When compared to the other products tested previously on the same four soils, the Simple Green product was as effective as the others.