CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	2008
DateRun:	04/08/2008
Experimenters:	Ephraim Massawe
ClientType:	Lab
ProjectNumber:	Project #1
Substrates:	Aluminum
PartType:	Coupon
Contaminants:	Cutting/Tapping Fluids
Cleaning Methods:	Immersion/Soak
Analytical Methods:	Gravimetric
Purpose:	removing cutting fluid off of the surface of aluminum by using non-toxic cleaners.
Experimental Procedure:	Basic cleaning performance testing was conducted using ASTM G122 as the bases for cleaning. Products were based on the compatibility of substrate and removal of foreign substance. Used 5% concentration and heated the samples at 135F. The coupons were immersed in a product for 5 minutes, rinsed for 30 seconds in tap water at 120F and dried in 30 seconds

Results:

Cleaner	Initial wt	Final wt	% Removed
aquavantage 1400 GD			
	0.9980	0.0412	95.87
	0.7371	0.0398	94.60
	0.8273	0.0116	98.60
Amberclean L12			
	1.1533	0.0028	99.76
	0.8348	0.0018	99.78
	0.4512	0.0063	98.60
Seawash Blue			
	0.9970	0.0144	98.56
	0.8899	0.0143	98.39
	0.8744	0.0092	98.95
SC aircraft and metal cleaner			
	0.5912	0.0578	90.22
	0.9434	0.0421	95.54
	0.7929	0.0634	92.00

Summary:

Substrates:	Aluminum
Contaminants:	Cutting/Tapping Fluids

Company Name:	Product Name:	Conc.:	Efficiency:	Effective:	Observations:
Brulin Corporation	Aquavantage 1400	5	96.36	☑	
Warren Chemical Company	Sea Wash Blue	5	98.63	☑	
Gemtek Products	SC Aircraft & Metal Cleaner Super Concentrate	5	92.59	☑	
Innovative Organics Inc	Amberclean L 12	10	99.38	☑	

Conclusion: All products tested has passed the contaminant removal of 85% or higher.