CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	2008
DateRun:	09/17/2008
Experimenters:	Daniel Pina
ClientType:	Lab
ProjectNumber:	Project #1
Substrates:	Stainless Steel
PartType:	Coupon
Contaminants:	Cutting/Tapping Fluids
Cleaning Methods:	Immersion/Soak
Analytical Methods:	Gravimetric
Purpose:	To remove cutting fluid from stainless steel using immersion cleaning.
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 using compressed air is room temperature. Coupons were coated with Citgo cutting fluid 205. Using a handheld swab and allowed to dry for 24 hours 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:	Two products were able to reach the 85% or over effective rate while the other 5 failed to reach this success goal. The Table lists the amount of soil added, the amount remaining and the calculated efficiency for each coupon cleaned.

Cleaner	Initial wt	Final wt	% Removed
hurrisafe 9100 paint prep			
	0.0767	0.0308	59.84
	0.1712	0.0303	82.30
	0.1287	0.0252	80.42
formula 815MX AA			
	0.0579	0.0267	53.89
	0.1095	0.0267	75.62
	0.1716	0.0309	81.99
Heavyweight			
	0.1395	0.0290	79.21
	0.1930	0.0309	83.99
	0.0938	0.0286	69.51
BG Clean 648			
	0.0676	0.0288	57.40
	0.0507	0.0292	42.41
	0.1949	0.0248	87.28
SW6 Metals degreasing solution			
	0.1304	0.0304	76.69
	0.1667	0.0321	80.74
	0.2079	0.0309	85.14
SW Wash10 Aircraft Cleaner			
	0.2990	0.0294	90.17
	0.2963	0.0251	91.53
	0.2177	0.0264	87.87
Aqua safe			
	0.3048	0.0263	91.37
	0.2470	0.0266	89.23

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	0.3297	0.0274	91.69

Summary:

Substrates:	Stainless Steel				
Contaminants:	Cutting/Tapping Fluids				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
PCI of America	Hurrisafe 9100 Paint Prep	5	74.19	☐	
Brulin Corporation	Formula 815MX AA	5	70.50	☐	
EcoLink	Heavy Weight Non Butyl Detergent	5	77.57	☐	
BioGenesis Enterprises Inc	BG Clean 648	5	62.36	☐	
Chem Free Corporation	SW-6 Ozzy Juice Select Metals Degreasing Solution	5	89.86	☑	
A 1 Hydro Parke Hill Chemical	SW Wash 10 Aircraft Cleaner	5	90.76	☑	

Conclusion:

SW6 Metals degreasing solution from Chem free corporation and SW Wash 10 Aircraft Cleaner from A1 Hydro Parke Hill Chemical has passed the acceptable rate of 85 or higher percent.