CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	2008
DateRun:	11/17/2008
Experimenters:	Daniel Pina
ClientType:	Lab
ProjectNumber:	Project #1
Substrates:	Stainless Steel
PartType:	Coupon
Contaminants:	Oil
Cleaning Methods:	Immersion/Soak
Analytical Methods:	Gravimetric
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 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 used oil. Using a handheld swab and allowed to dry for 144 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:

Cleaner	Initial wt	Final wt	% Removed
Bigenesis Enterprise inc., BG Clean 648			
	0.0896	0.0243	72.88
	0.2607	0.0117	95.51
	0.1315	0.0277	78.94
PCL of America, Hurisafe 9100			
	0.2655	0.0587	77.89
	0.3303	0.1879	43.11
	0.2993	0.1200	59.91
Kyzen corporation, Aquanox A4512			
	0.3542	0.1282	63.81
	0.3639	0.0872	76.04
	0.3925	0.0846	78.45
Magnaflux, Daraclean 259			
	0.2975	0.0590	80.17
	0.4423	0.0790	82.14
	0.4765	0.0638	86.61
Finger lakes company, Pinene all-purpose cleaner			
	0.3743	0.1303	65.19
	0.3460	0.0959	72.28
	0.3959	0.1446	63.48
Valtech corporation, Valtron sp 2270			
	0.3851	0.0767	80.08
	0.3701	0.1125	69.60
	0.3615	0.1107	69.38

Summary:

Substrates:	Stainless Steel				
Contaminants:	Oil				
		Conc.:	**Efficiency:**	**Effective:**	**Observations:**

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Company Name:	Product Name:				
BioGenesis Enterprises Inc	BG Clean 648	5	82.44	☐	Very close to reaching the 85% percent passing rate possibly by doubling concentration of this soulution could yield the neccesary passing score of 85% removal
PCI of America	Hurrisafe 9100 Paint Prep	5	60.30	☐	Did not pass our effective rate of 85% removal
Kyzen Corporation	Aquanox A4512	5	72.76	☐	Did not pass our passing rate of removal of 85%.
Magnaflux	Daraclean 259	5	82.97	☐	Almost reached passing removal rate of 85% possibly doubling the concetration will give the accepatable rate of removal
Finger Lakes Chemical	FLSC-31 Pinene All Purpose Cleaner	5	66.98	☐	Did not pass our acceptable rate of 85 percent.
Valtech Corporation	Valtron SP 2270	5	73.02	☐	Did not pass our acceptable rate of removal of 85%

Conclusion: The products tested that scored more than 72 percent will be looked at again by doubling its concentration to 10 percent to see if they reach the acceptable removal rate of 85 percent.