CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2008

DateRun: 10/02/2008

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 motor oil. 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:

Cleaner	Initial wt	Final wt	% Removed
Brulin Corporation Formula 815MXAA			
	0.1091	0.0795	27.13
	0.2255	0.1128	49.98
	0.1973	0.1500	23.97
Ecolink Heavyweight			
	0.2446	0.1210	50.53
	0.3190	0.0591	81.47
	0.3061	0.1144	62.63
Chem Free Corporation SW6 Metals degreasing solution			
	0.3545	0.1929	45.59
	0.1714	0.1652	3.62
	0.3329	0.2089	37.25
A1 Hydro Parke Hill Chemical SW Wash 10 aircraft cleaner			
	0.2344	0.1678	28.41
	0.2384	0.1548	35.07
	0.1744	0.0919	47.31
Brulin Corporation Aqua Safe			
	0.2970	0.1325	55.39
	0.4681	0.1873	59.99
	0.3897	0.0994	74.49

Summary:

Substrates:	Stainless Steel				
Contaminants:	Oil				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Brulin Corporation	Formula 815MX AA	5	33.69	☐	
EcoLink	Heavy Weight Non Butyl Detergent	5	64.88	☐	
Chem Free Corporation	SW-6 Ozzy Juice Select Metals Degreasing Solution	5	28.82	☐	
A 1 Hydro Parke Hill Chemical	SW Wash 10 Aircraft Cleaner	5	36.93	☐	
Brulin Corporation	Aqua Safe	5	9.97	☐	

Conclusion:

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From the given concentration of 5 percent none of the products has surpassed the passing rate of 85 percent removal rate. But there are 4 products out of the five that were tested that show promise of oil removal if the concentration was increased.