CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2008

DateRun: 12/09/2008

Experimenters: Johanna Oviedo

ClientType: Lab

ProjectNumber: Project #1

Substrates: Stainless Steel

PartType: Coupon

Contaminants: Resins/Rosins

Cleaning Methods: Immersion/Soak

Analytical Methods: Visual

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 selected based on the compatibility of substrate and removal of foreign substance. Used 5% concentration and heated the samples at 135F. The steel 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 minutes 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
Sea Wash 77			
	0.5532	0.3600	34.92
	0.1223	0.1113	8.99
	0.9804	0.6202	36.74
SW Wash 10	10.0000		
	0.5245	0.3948	24.73
	0.2011	0.1369	31.92
	0.6825	0.5677	16.82
Metalnox CP30			
	1.9783	1.9546	1.20
	0.8599	0.8703	-1.21
	0.3391	0.3517	-3.72
Lonox 13302			
	1.6223	1.6305	-0.51
	0.5654	0.5662	-0.14
	1.1332	1.1398	-0.58
Nonsilicated HP			
	0.6200	0.5735	7.50
	2.2645	1.9089	15.70
	0.4922	0.4930	-0.16
Safety Strip 5890			
	1.5213	1.3694	9.98
	0.5644	0.5902	-4.57
	0.5036	0.5277	-4.79

Summary:

Substrates:	Stainless Steel
Contaminants:	Resins/Rosins

Company Name:	Product Name:	Conc.:	Efficiency:	Effective:	Observations:
Warren Chemical Company	Sea Wash 77	10	26.89	☐	good
A 1 Hydro Parke Hill Chemical	SW Wash 10 Aircraft Cleaner	10	24.49	☐	
Kyzen Corporation	Metalnox CP 30	10	-1.24	☐	
Kyzen Corporation	lonox 13302	10	-0.41	☐	

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Brulin Corporation	Non Silicated HTD	10	7.68	☐	
Brulin Corporation	Safety Strip 5896 B Oil Seal	10	0.21	☐	

Conclusion: No product was effective at removing the resin from stainless steel using immersion cleaning.