CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	2008
DateRun:	12/09/2008
Experimenters:	Johanna Oviedo
ClientType:	Lab
ProjectNumber:	Project #1
Substrates:	Stainless Steel
PartType:	Coupon
Contaminants:	Oil
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
Warren Chemical Company, Sea Wash 77			
	0.2494	0.0319	87.21
	0.1905	0.0310	83.73
	0.2560	0.0566	77.89
A1 Hydro Parke Hill, SW Wash 10			
	0.2619	0.0186	92.90
	0.3544	0.0298	91.59
	0.1791	0.0360	79.90
Kyzen Corporation, Me talnox-CP30			
	0.2577	0.0544	78.89
	0.1235	0.0270	78.14
	0.0695	0.0302	56.55
Kyzen Corporation, lonox 13302			
	0.2069	0.0436	78.93
	0.1452	0.0598	58.82
	0.1411	0.0527	62.65
Brulin Corporation, nonsilicated HTP			
	0.1714	0.0222	87.05
	0.1887	0.0316	83.25
	0.3632	0.0527	85.49
Brulin Corporation, Safety Strip S P96			
	0.1442	0.0485	66.37
	0.2834	0.0653	76.96
	0.2878	0.0556	80.68

Summary:

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Company Name:	Product Name:	Conc.:	Efficiency:	Effective:	Observations:
Warren Chemical Company	Sea Wash 77	10	82.94	☐	
A 1 Hydro Parke Hill Chemical	SW Wash 10 Aircraft Cleaner	10	88.13	☑	
Kyzen Corporation	Metalnox CP 30	10	71.19	☐	
Brulin Corporation	Non Silicated HTD	10	85.26	☑	
Brulin Corporation	Safety Strip 5896 B Oil Seal	10	74.67	☐	

Conclusion: Two products removed more than 85% of the Elcutt 51 oil from stainless steel using immersion cleaning.