

# CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2008  
 DateRun: 10/18/2008  
 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
Brulin Corporate Formula 815 MX AA			
	0.1469	-0.0628	142.75
	0.2427	0.0080	96.70
	0.3524	-0.0134	103.80
Ecolink Heavyweight			
	0.4253	0.0079	98.14
	0.3511	0.0115	96.72
	0.3315	0.0010	99.70
Chemfree Corporation SW6 Metal degreaser			
	0.3779	0.0424	88.78
	0.3149	0.0094	97.01
	0.3497	0.0093	97.34

Summary:

<b>Substrates:</b>		Stainless Steel			
<b>Contaminants:</b>		Oil			
Company Name:	Product Name:	Conc.:	Efficiency:	Effective:	Observations:
Brulin Corporation	Formula 815MX AA	20	114.42	<input checked="" type="checkbox"/>	removed all of the oil from the stainless steel coupon.
EcoLink	Heavy Weight Non Butyl Detergent	10	98.19	<input checked="" type="checkbox"/>	removed all of the oil from the stainless steel coupon.
Chem Free Corporation	SW-6 Ozzy Juice Select Metals Degreasing Solution	20	94.38	<input checked="" type="checkbox"/>	removed all of the oil from the stainless steel coupon.

Conclusion: The products tested passed scored higher than the acceptable pass rate of 85 percent.