CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2008

DateRun: 11/24/2008

Experimenters: Johanna Oviedo

ClientType: Lab

ProjectNumber: Project #1

Substrates: Stainless Steel

PartType: Coupon

Contaminants: Cutting/Tapping Fluids

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
SW 6			
	0.0625	0.0179	71.36
	0.0516	0.0216	58.14
	0.0410	0.0121	70.49
Metalnox M6410			
	0.0243	0.0119	51.03
	0.0306	0.0152	50.33
	0.0353	0.0190	46.18
Daraclean 203			
	0.0600	0.0247	58.83
	0.0267	-0.0016	105.99
	0.0382	0.0074	80.63
Daraclean 257			
	0.0447	0.0125	72.04
	0.0600	0.0125	79.17
	0.0384	0.0150	60.94
Metalnox M6432			
	1.1187	1.0446	6.62
	0.0550	0.0090	83.64
	0.0914	0.0088	90.37

Summary:

Substrates:	Stainless Steel				
Contaminants:	Cutting/Tapping Fluids				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Chem Free Corporation	SW-6 Ozzy Juice Select Metals Degreasing Solution	5	66.66	☐	
Kyzen Corporation	Metalnox M6410DT	5	49.18	☐	
Magnaflux	Daraclean 203	5	81.82	☐	
Magnaflux	Daraclean 257	5	70.71	☐	
Kyzen Corporation	Metalnox M6432 (For Comparison Only)	5	60.21	☐	

Conclusion: No product removed over 85% of the tapping fluid using immersion cleaning.