CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2008

DateRun: 12/01/2008

Experimenters: Johanna Oviedo

ClientType: Lab

ProjectNumber: Project #1

Substrates: Stainless Steel

PartType: Coupon

Contaminants: Cutting/Tapping Fluids

Cleaning Methods: Immersion/Soak

Analytical Methods: Gravimetric

Purpose: To remove taping fluid from stainless steel using immersion cleaning

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 for removal of the contaminant. Five percent concentrations were used and heated the samples at 130F. The coupons were immersed in a product for 5 minutes, rinsed in tap water at 120 F and dried using compressed air at room temperature. Coupons were coated with used tapping fluid using a handheld swab and allowed to dry for 120 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
Chem Free Corp. SW 6 Metals			
	0.1487	0.0368	75.25
	0.1693	0.0261	84.58
	0.3071	0.0218	92.90
Kyzen Corp, Metlanox M6410DT			
	0.2062	0.0309	85.01
	0.2507	0.0447	82.17
	0.1986	0.0581	70.75
Kyzen Corp, Metlanox M6432			
	0.2392	0.0694	70.99
	0.1099	0.0214	80.53
	0.1124	0.0223	80.16
Magnaflux, Daraclean 203			
	0.1073	0.0346	67.75
	0.1435	0.0207	85.57
	0.0797	0.0320	59.85
Magnaflux, Daraclean 257			
	0.1548	-0.0104	106.72
	0.2523	0.0262	89.62
	0.2121	0.0296	86.04

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	84.25	☐	
Kyzen Corporation	Metalnox M6410DT	5	79.31	☐	
Magnaflux	Daraclean 203	5	77.22	☐	
Magnaflux	Daraclean 257	5	71.06		

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Kyzen Corporation	Metalnox M6432 (For Comparison Only)	5	94.13	☑	

Conclusion: Only one product removed over 85% of the tapping fluid. A second product removed just less than 85%.