CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2008

DateRun: 06/03/2008

Experimenters: Ephraim Massawe

ClientType: Lab

ProjectNumber: Project #1

Substrates: Aluminum

PartType: Coupon

Contaminants: Coatings, Cutting/Tapping Fluids, Oil

Cleaning Methods: Immersion/Soak

Analytical Methods: Breath test

Purpose: Removing grinding fluid, rust preventatives, and cutting oil from the surface of aluminum. By using non-toxic cleaning products.

Experimental Procedure: Basic cleaning performance testing was conducted using ASTM G122 as the bases for cleaning.

Weigh the coupons to get an initial weight. Then you add the containment on the aluminum coupons and weigh the coupons again to go and get the dirty weight. Afterwards leave the coupons alone for 24hrs or overnight. Then clean off the coupon using immersion cleaning followed by rinsing and drying.

Results:

Cleaner	Initial wt	Final wt	%Removed
metalnox m6310			
	0.1677	0.0928	44.66
	0.2553	0.0974	61.85
	0.1287	0.0838	34.89
united 605			
	0.1313	0.1583	-20.56
	0.0720	0.1653	-129.58
	0.2423	0.1618	33.22
metalnox m6310			
	0.2870	0.1084	62.23
	0.2274	0.1155	49.21
	0.2143	0.0923	56.93
united 605			
	0.2434	0.1742	28.43
	0.2056	0.1957	4.82
	0.1401	0.1541	-9.99
metalnox m6310			
	0.3124	0.3008	33.71
	0.2692	0.2674	0.67
	0.5791	0.2833	51.08
united 605			
	0.3296	0.2590	21.41
	0.2692	0.2902	-7.80
	0.3184	0.2914	8.48

Summary:

Substrates:	Aluminum
Contaminants:	Coatings, Cutting/Tapping Fluids, Oil

Company Name:	Product Name:	Conc.:	Efficiency:	Effective:	Observations:
Kyzen Corporation	Metalnox M6310 (For Comparison Only)	100	47.13	☐	
Kyzen Corporation	Metalnox M6310 (For Comparison Only)	100	56.12	☐	
Kyzen Corporation	Metalnox M6310 (For Comparison Only)	100	18.49	☐	
United Laboratories International	Smart Solve 605	100	-38.97	☐	

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United Laboratories International	Smart Solve 605	100	7.75	☐	
United Laboratories International	Smart Solve 605	100	7.37	☐	

Conclusion: None of the products tested surpassed the passing removal rate of 85%. There was one test with Smart Solve 605 when tested to remove grinding fluid actually decreased the weight of the coupon by 38.97%. Their needs to be more of a test.