CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2006

DateRun: 10/11/2006

Experimenters: Jason Marshall

ClientType: Lab

ProjectNumber: Project #1

Substrates: Aluminum

PartType: Coupon

Contaminants: Carbon Deposits, Greases, Oil

Cleaning Methods: Immersion/Soak

Analytical Methods: Gravimetric

Purpose: Laboratory evaluations of alternative aerosol cleaning products

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

One product was retested from the previous trial at a higher concentration. An additional two products also were selected for testing based on equipment compatibility and soil removal. The three products were used at full strength in 250 ml beakers. Products were used at room temperature. Nine preweighed aluminum coupons were coated with a collection of brake/engine soil collected from an automobile shop. The coupons were allowed to sit for several days before a second weight was recorded. Three coupons were cleaned in each solution for 5 minutes using minimal agitation from a magnetic stir bar. Coupons were then rinsed in tap water for 15 seconds and dried using air blow off at room temperature for 30 seconds. Following drying, final weights were recorded and cleaning efficiencies were calculated.

Results: The table lists the amount of soil added, the amount remaining and the efficiency for each coupon cleaned.

Cleaner	Initial wt	Final wt	% Removed
Inproclean 4000T	0.6415	0.5512	14.08
	0.7043	0.4902	30.40
	0.6545	0.5704	12.85
Organic Clean-Degreaser	0.6544	0.5537	15.39
	0.4955	0.4327	12.67
	0.9758	0.8654	11.31
Ionox HC 2	0.3976	0.3644	8.35
	0.6769	0.6062	10.44
	0.9009	0.8154	9.49

Summary:

Substrates:	Aluminum				
Contaminants:	Carbon Deposits, Greases, Oil				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Oakite Products	Inproclean 4000 T	100	19.11	☐	
1st Envirosafety Inc. - No Longer Exists	Organic Cleaner/Degreaser - For Comparison Purposes Only	100	13.13	☐	
Kyzen Corporation	Ionox HC 2	100	9.43	☐	

Conclusion: The products did not work well at room temperature using immersion cleaning.