CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2002

DateRun: 02/05/2002

Experimenters: Purav Dave

ClientType: Lab

ProjectNumber: Project #1

Substrates: Aluminum, Stainless Steel

PartType: Coupon

Contaminants: Greases, Lubricating/Lapping Oils

Cleaning Methods: Mechanical Agitation

Analytical Methods: Gravimetric

Purpose: Laboratory evaluations of alternative cleaning products

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

Cleaning: 5 min. immersion cleaning with air sparger as an agitation medium at 120 F.
Rinsing: 1/2 min. manual with water at 120 F.
Drying :1 min. with heat gun at 500 F.
Contaminant:
1. Grease: keystone KSL-111.ELF Lubricant, Diester based Grease
2. Lubricant - ITW Devkon Safetap stick, grinding lubricant, contains TSRK 80100221-5000P, TSRK 80100221-5001P, TSRK 80100221-5002P

Results:

Summary:

Substrates:	Aluminum, Stainless Steel				
Contaminants:	Greases, Lubricating/Lapping Oils				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Oakite Products	Citradet	5	81.67	☐	Contaminant: Grease, Substrate : stainless steel
Oakite Products	Inproclean 2500	5	85.00	☑	Contaminant: Grease, Substrate : stainless steel
Watson Technical Associates	Watson Formula 7300	5	82.15	☐	Contaminant: Grease, Substrate : stainless steel
JDI Inc	Mirachem 500 RTU	5	69.37	☐	Contaminant: Lubricant, Substrate : Aluminium
Hubbard Hall Inc	Aquasonic 201	5	93.64	☑	Contaminant: Lubricant, Substrate : Aluminium
Magnum Research Corporation	Aluminum Aerowash	5	99.43	☑	Contaminant: Lubricant, Substrate : Aluminium

Conclusion: 1st 3 evaluations are for comparing stir-bar agitation with air sparger. It was found that first two evaluations, the results were almost comparable but in the third one with Watson formula 7300, air sparger was more affective, about 12% more efficiency.