CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	2001
DateRun:	10/16/2001
Experimenters:	Jason Marshall
ClientType:	Electronics Manufacturer
ProjectNumber:	Project #1
Substrates:	Aluminum, Titanium
PartType:	Coupon
Contaminants:	Cutting/Tapping Fluids, Lubricating/Lapping Oils, Oil
Cleaning Methods:	Immersion/Soak
Analytical Methods:	
Purpose:	Help with concentration usage.
Experimental Procedure:	Question aksed: What concentration of of cleaning product. We usually mixed with water and for 1 part of product how many part of water I need, it is a question. We use INPROCLEAN 3800 to clean titanium,aluminum parts after stamping with oil.Thickness of metal 0.002" diameter 1"- 4"
Results:	Two lists generated. The first one lists operating conditions for Inproclean 3800 used at SCL. The second is the contaminants cleaned during the trial.

Vendor Recommends between 4 and 20%			
Cleaning Chem	Cleaning Conc	Cleaning Temp	Cleaning Time
Inproclean 3800	100	room	
Inproclean 3800	10	138	15
Inproclean 3800	10	144	15
Inproclean 3800	5	120	15
Inproclean 3800	10	148	20
Inproclean 3800	10	150	20
Inproclean 3800	10 + 2 Ladd	150	20
Inproclean 3800	15	150	
Inproclean 3800	10	150	
Inproclean 3800	10	110	5
Inproclean 3800	3	120	5
Inproclean 3800	10	150	360
Inproclean 3800	10	120	10
Inproclean 3800	10	120	10
Inproclean 3800	10	120	10
Inproclean 3800	5	130	5
Inproclean 3800	5	140	5
Inproclean 3800	5	room	0.5

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Inproclean 3800	5	130	1
Inproclean 3800	100	room	2
Inproclean 3800	5	130	5
Inproclean 3800	10	130	5
Inproclean 3800	5	130	5
Inproclean 3800	10	120	10
Inproclean 3800	10	130	10
Inproclean 3800	5	130	3
Inproclean 3800	10	120	5,10
Inproclean 3800	5	130	5
Inproclean 3800	5	130	5
Inproclean 3800	5	130	5
Inproclean 3800	2	room	5
Inproclean 3800	5	130	5
Inproclean 3800	2	room,130	2
Inproclean 3800	2	room,130	5
Inproclean 3800	10	120	10
Inproclean 3800	5	130	3
Inproclean 3800	5	130	3
Inproclean 3800	5	130	3
Inproclean 3800	5	130	3
Inproclean 3800	5	130	3
Inproclean 3800	10	120	10
Inproclean 3800	5	130	5
Inproclean 3800	5	130	5
Inproclean 3800	5	115	5
Inproclean 3800	5	115	15
Inproclean 3800	5	140	5,10,15
Inproclean 3800	5	85	5
Inproclean 3800	5	130	5
Inproclean 3800	5	130	5,10,45,60
Inproclean 3800	5	130	5

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Inproclean 3800	5	130	5
Inproclean 3800	5	130	5
Inproclean 3800	5	130	5
Inproclean 3800	5	130	5
Inproclean 3800	5	130	5
Inproclean 3800	5	130	5
Inproclean 3800	5	130	5
Inproclean 3800	5	130	2
Inproclean 3800	5	130	5
Inproclean 3800	5	130	5
Inproclean 3800	5	130	3
Inproclean 3800	5	130	3
Inproclean 3800	5	130	3
Inproclean 3800	5	130	3
Inproclean 3800	5	130	5
Inproclean 3800	5	120	15
Inproclean 3800	5	85	5
Inproclean 3800	5	120	5

Total Of SCL #	Contaminant
1	% pH Boost (polysiloxane)
1	Anti Foam (2746.80-6, 124-68-5)
1	CA-12 (4719-04-4)
1	Castrol Industrial, Inc Rustilo DW 924 HF (64742-53-6, 61790-48-5, 64742-47-8); Theis metal
1	Coating; Chemtrol 331 corrosion inhibitor (102-71-6, 111-42-2)
1	Coolant; Spartan Chemical MOAC 2945 (64742-52-5, 64742-53-5, 63449-39-8, 68608-26-4, 68918-91-2, 8002-26-4, 111-46-6, 107-41-5, 4719-04-4)
1	cutting fluid
1	dirt
1	Esso Sekiyo K.K. Anti Rust ND 33 (64742-48-8, 64742-01-4); Hitachi metal
1	fingerprints
1	lubricant
1	Lubricant, ITW Fluid Products Power Stamp II
1	lubricant; W.A. Wood #30 Lube Oil
1	metal working fluids
1	MOAC 2945 (64742-52-5, 64742-53-5, 63449-39-8, 68608-26-4, 68918-91-2, 8002-26-4, 111-46-6, 07-41-5, 4719-04-4)

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2	Nalco Chemical Co Nalco 2350 Polishing Slurry
1	oil
2	Oil; C-Eblis Cutting Oil (64742-53-6, 64742-52-5)
1	Oil; Hubbard Hall Inc, Metal Guard 270
1	oil; Milacron Cimperial 1070
1	Oil; Precision Finishing Inc, Chemtrol 229
1	Rust Preventatives, Castrol Industrial, Inc Rustilo DW 924 HF (64742-53-6, 61790-48-5, 64742-47-8)
1	Rust Preventatives, Castrol Rustilo DWX 30 (64742-82-1; 61790-48-5; 112-34-5)
1	Rust Preventatives, Houghton Rust Veto C3
1	Saint Gobain Industrial Ceramics Water Based Alumina
3	90 Wt Geat Oil
1	Blanchard Stacking Wax #5
4	Buffing Compound (Anchor Chemical Co, Anchor Spin G-10)
2	Buffing Compound (Lea Manufacturing Co, 2-B-111)
1	Buffing Compound (Matchless Metal Polishing Co, 516 Tripoli Compound)
1	Buffing compound Jackson-Lea Manufacturing Co, 6B-71(1344-28-1)
1	Buffing compound, Lea Manufacturing Co, Learok 8-B-106 (1309-37-1,1344-28-1,14808-60-7)
1	Buffing Compound-Jackson Lea Antique Buffing compound LM-12 (9000-70-8,1344-28-1,409-21-2,1309-37-1)
1	C-Eblis oil (sulfur based)
3	Clover Grease Lapping Oil
3	Dirt
3	DuPont Evanol (Vinyl Alcohol polymers &copolymers 9002-89-5,25213-24-5,54626-91-4,methanol 67-56-1,Sodium Acetate 127-09-3)
1	fluorescent tag added (Spectronics Corporation’s AR-GLO® 1)
1	Grime
3	Ink
2	ITW Safetap
2	Jackson-Lea Polishing & Buffing Compound LPTL-22A (1344-28-1, 9000-70-8)
1	lapping oils
2	Latex binder (7664-41-7, 9016-45-9, 50-00-0, 1333-86-4, 57-55-6)
2	Lubricant mix-Hydroil AW-3 (petroleum hydrocarbon); Express Gear Lubricant F
3	Lubri-temp Anti-Seize lubricant
1	machining oil
1	Matchless Metal Polishing Co, Z-230 Buffing Compound (7429-90-5)
1	Metal working fluid (Hangsterfer's S-500 CF-US)
1	None
7	Oil
2	oil, Citgo NC 400, 64742-53-6, 64741-89-5, 64741-44-2
2	oil, Citgo NC400
3	Paint

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2	Park Chemical Corporation Haze Quench Oil
1	Pitch compounds
1	Polishing compounds
3	Selmer Tuning Slide and Cork Grease
3	smut
2	Snowden-Pencer F-26 Grease Stick Polishing Lubricant (64742-52-5, 68815-16-7, 67701-27-3, 102-71-6)
2	Steco Corporation Tap magic Al cutting fluid
2	Tower Oil & Technology LS-H-213 (8052-41-3)
3	Tuf Draw Vanishing Film 2889 (64741-65-7)
2	Universal Photonics #48 Transparent Pitch
3	Valvoline wheel bearing grease
1	Water based soaps
5	Wax

Summary:

Substrates:	Aluminum, Titanium				
Contaminants:	Cutting/Tapping Fluids, Lubricating/Lapping Oils, Oil				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Oakite Products	Inproclean 3800			☐	

Conclusion:

Sent you some information on Inproclean 3800 testing conducted at SCL. Attached here is the test request form and the Out-Of-State Testing agreement. We can help you determine the concentration that would be best for you. Let SCL know if you are interested in conducting testing.