CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	1996
DateRun:	11/19/1996
Experimenters:	Jay Jankauskas
ClientType:	Manufacturers of Precision Parts and Assemblies
ProjectNumber:	Project #1
Substrates:	Aluminum, Brass, Copper, Stainless Steel
PartType:	Part
Contaminants:	Cutting/Tapping Fluids, Lubricating/Lapping Oils, Oil
Cleaning Methods:	
Analytical Methods:	
Purpose:	Test results from cleaning analysis on parts
Experimental Procedure:	Enclosed are the test results from the cleaning analysis on the parts that you sent to the lab. After testing nine different aqueous cleaners, I have found two that I think will work well for you. One chemistry is the Brulin Corporation 815 GD process detergent whereas the other is the Oakite Products, Inc. Inproclean 2000.
Results:	The Oakite product showed very little corrosion on brass, aluminum and copper and did an excellent job on removing two of the three contaminants (it did have a tough time removing the Ilocut 5721 oil). The Brulin was the most effective of the nine chemistries tested in removing all three oils, and appears to be multi-metal safe. The only problem with the 815 GD is that it is high foaming which could be a problem depending on the type of agitation you use. This shortcoming can be solved by either adding defoaming agents or by using Brulin's low foam cleaner (Brulin 1990 GD). Below are the contact names for both Brulin and Oakite Products. Brulin Corporation Joe Titus 800-776-7149 x4990 mailbox #1022 Oakite Products, Inc. Steve Hurley Jr. 800-526-4473 x2500

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Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Brulin Corporation	Formula 815 GD		0.00	☑	
Oakite Products	Inproclean 2000		0.00	☑	

Conclusion: Of course, a cleaning chemistry is only as effective as how you use it. In the enclosed report I gave a few ideas as to what types of agitation would be effective for your parts. I have also enclosed an article on vapor degreaser retrofits which may interest you along with some catalogs from vendors who sell equipment that would be appropriate for your cleaning application. I will contact you in a few days to see if you have any questions, or if there is any additional testing you would like performed.