

# CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 1997  
DateRun: 07/28/1997  
Experimenters: Jason Marshall, Prashant Trivedi  
ClientType: Biomedical Device Manufacturer  
ProjectNumber: Project #1  
Substrates: Stainless Steel  
PartType: Part  
Contaminants: Lubricating/Lapping Oils, Resins/Rosins, Plastic  
Cleaning Methods: Ultrasonics  
Analytical Methods: Visual, Wipe  
Purpose: Clean supplied parts with new system.

Experimental Procedure: The parts supplied by the client were cleaned using the best cleaners from the previous trials and using the 48 KHz ultrasonic unit at 120 F for ten minutes, rinsed in tap water for two minutes at 120 F and dried with a hot a gun for two minutes. Cotton swabs were used to wipe the cleaned surfaces and then visually inspected for residual contaminants. Finally, the samples were sealed in bags and set aside for visual inspection by the client.  
SUBSTRATE MATERIAL: Stainless Steel  
CONTAMINANTS: Lubri-temp Anti-Seize lubricant, Plastics

Results: Upon visual inspection, the parts appeared to be clean. Using the cotton swabs to test the surfaces and the screw holes demonstrated that the parts were not 100% clear of contaminants; however, the samples only contained minimal amounts of the contaminants.

Summary:

<b>Substrates:</b>		Stainless Steel			
<b>Contaminants:</b>		Lubricating/Lapping Oils, Resins/Rosins, Plastic			
<b>Company Name:</b>	<b>Product Name:</b>	<b>Conc.:</b>	<b>Efficiency:</b>	<b>Effective:</b>	<b>Observations:</b>
US Polychem Corporation	Polychem A 2000 XS	10		<input checked="" type="checkbox"/>	
Magnaflux	Daraclean 282	10		<input checked="" type="checkbox"/>	
Oakite Products	Inproclean 3800	10		<input checked="" type="checkbox"/>	

Conclusion: All the part that were cleaned for C.R. Bard appeared to be very clean. The parts should be inspected by the clients in order to tell if the level of cleanliness is acceptable.  
The amount of contaminate removed from the parts was very extensive and could cause the clients to use large amounts of the cleaning solutions, whichever they select. One way to combat the possible high volume of cleaner would be to filter out the contaminants from the cleaning solutions. Even after the solutions were filtered in the lab, a large amount of the contaminants remained suspended in the solutions. Perhaps a smaller filter size might help to reduce the amount of contaminants left in the cleaners by collect the minute particles floating in the solutions.