

CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 1996
 DateRun: 10/09/1996
 Experimenters: Jay Jankauskas
 ClientType: Biomedical Device Manufacturer
 ProjectNumber: Project #1
 Substrates: Stainless Steel
 PartType: Part
 Contaminants:
 Cleaning Methods:
 Analytical Methods: FTIR, OSEE
 Purpose: Cleanliness analysis results for impeller shafts

Experimental Procedure: I just finished analyzing the impeller shafts that you sent me the other week. The readings on this batch of parts seem to make a lot more sense than the previous readings. Both the alcohol soak and the Dow Corning OS10 soak removed some of the contamination to a degree, but it still looks like the vapor degreaser does a much better job.

Results:

FTIR & OSEE RESULTS		
for C.R. Bard, Inc.		
Part Type	Peak Height (% Transmittance)	OSEE Average
1/* Precision Ball		
Dirty	0.0734	73.88
Vapor Degreased	0.0514	109.00
Alcohol Soak	0.0506	94.75
11 Fr. Spring		
Dirty	0.0690	119.90
Vapor Degreased	0.0508	177.10
Alcohol Soak	0.0385	145.70
J Pins		
Dirty	0.0356	83.57
Vapor Degreased	0.0309	131.57
Alcohol Soak	0.0000*	190.83
Short Pins		
Dirty	0.1500	
Vapor Degreased	0.0462	
Alcohol Soak	0.0484	
Impeller Plates		
Dirty	0.5930	276.90
Vapor Degreased	0.1610	458.90
Alcohol Soak	0.0556	561.75
Alcohol Soak & Wipe	0.0416	783.30
Impeller Shafts		
Dirty	0.0800	140.90

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Passivated	0.0472	163.11
Passivated and Alcohol Soaked	0.9010	139.33
Vapor Degreased	0.0000*	191.30
Alcohol Soak	0.1000	112.25
Alcohol Soak & Wipe	0.0940	87.88
Impeller Shafts sent on 10/3**		
Dirty	0.3900	16.13
Vapor Degreased	0.0820	192.44
Alcohol Soak	0.1260	55.9
Dow Corning OS-10 Soak	0.1180	54.2
11 Fr. Stylet Wires recieved on 10/28***		
Dirty	0.07224	
Vapor Degreased	0.05232	
Wipe with Green Thunder	0.08385	
Alcohol wipe	0.05239	
* FTIR reading of 0 corresponds to no contamination remaining		
** Second set were measured with 6 drops of contaminated solvent instead of one		
*** Fr wires were measured with 20 drops of contaminated solvent instead of one		

Summary:

Conclusion:

If you have any questions, please do not hesitate to call.