CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 1996

DateRun: 11/03/1996

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 of 11 Fr Stylet wires

Experimental Procedure: I just finished analyzing the 11 Fr. Stylet wires that you sent me last week. Judging from the amount of contaminated solvent I had to use to obtain a readable peak, these parts are quite clean to begin with. It seems that both the alcohol wipe and the vapor degreaser perform identically. The wires cleaned with green thunder cleaner showed more contamination than the dirty wires. This might be due to a slight content of low vapor pressure organics in the Green Thunder cleaner.

Results: FTIR & OSEE RESULTS for Biomedical Device Manufacturer

Part Type	Peak Height	OSEE Ave
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
Passivated	0.0472	163.11
Passivated-Alcohol	0.9010	139.33
Vapor Degreased	0.0000*	191.30
Alcohol Soak	0.1000	112.25
Alcohol Soak & Wipe	0.0940	87.88

CLEANING LABORATORY EVALUATION SUMMARY

Impeller Shafts sent on 10/3**		
Dirty	0.3900	16.13
Vapor Degreased	0.0820	192.44
Alcohol Soak	0.1260	55.90
Dow Corning OS-10 Soak	0.1180	54.20
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

OSEE Results for Biomedical Device Manufacturer
Part # 101446000 230056-0000 895-0019 102002
Lot # 13020707 13021720 3019101 23086
Desc. 1/8 Precision Ball Impeller Plates 11 Fr. Stylet J Pins

Dirty	Vap Degr	IPA Soak	Dirty	Vap Degr	Alc.s&w	Alc.soak	Dirty	Vap Degr	Dirty	Vap Degr	Alc. soak
77	95	90	272	343	970	446	198	197	43	147	231
63	111	87	327	485	755	416	208	213	76	159	158
84	112	104	385	511	904	563	169	210	61	124	106
70	113	102	270	397	678	506	215	202	76	132	269
98	120	101	214	402	512	590	152	194	108	136	262
51	101	85	248	553	734	609	141	202	122	149	119
69	117	96	281	468	850	848	137	198	99	74	
79	103	93	267	375	494	516	124	205			
	107	91	263	668	967		153	191			
	106		242	387	969		136	208			
Average											
73.8	109	94.75	276.90	458.90	783.30	561.75	163.30	202.00	83.57	131.57	190.83

Part # 868-0001 868-0002 23006000

Lot # 4161103 5318102

Desc. 11 Fr. Spring 9 Fr. Spring Impeller Shaft

Dirty	Vap Degr	Alc.Soak	Dirty	Dirty	Vap Degr	Pass	Pas&Alc	Alc.soak	Alc.s&w
125	138	136	256	158	194	138	158	83	105
118	155	146	288	151	198	173	157	121	88
114	157	157	302	87	182	140	167	115	75
121	198	156	258	144	184	153	124	114	74
111	165	142	234	133	203	138	124	108	83
117	157	149	218	158	203	217	120	121	103
109	255	139	181	109	190	154	140	118	87
130	204	133	227	164	182	188	141	118	88
124	186	147	206	178	196	167	123		
130	156	152	223	127	181				
Average									
120	177	146	239	141	191	163	139	112	87.9

Summary:

Conclusion: If you have any questions, please don't hesitate to call.