

CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 1996
DateRun: 08/12/1996
Experimenters: Jay Jankauskas
ClientType: Biomedical Device Manufacturer
ProjectNumber: Project #1
Substrates: Stainless Steel
PartType: Part
Contaminants:
Cleaning Methods:
Analytical Methods: OSEE
Purpose: Analysis of supplied parts
Experimental Procedure:

Results: I just finished analyzing the parts that you supplied to TURI on August 8th. Judging from the readings obtained, it looks like the OSEE will make an effective tool in evaluating the cleanliness level of your parts due to the consistent readings that were obtained.
I would like to give you a brief background on OSEE so you know what trends to look for in the data. The OSEE operates on the principle that all metals give off electrons when in contact with UV light. The OSEE device bombards the part with a given UV intensity and collects the electrons released from the metal surface as a current reading which is then converted to a voltage. The higher the voltage the higher the electron emission rate. Foreign substances on a metal's surface will absorb UV light and cause a lower electron emission rate thus resulting in a lower reading. Since the electron emission will vary greatly depending on the type of metal and the part's shape, these readings cannot be used to compare two different type of parts (you will not be able to compare the Impeller Plates to the 1/8 Precision Ball); however, OSEE is generally a good analytical tool to evaluate similar surface types.

Summary:

Conclusion: Although I expressed some concerns about the shape and size of some of the parts, I believe that I solved this by taking readings on a Teflon background (Teflon does not release electrons when contacted with UV light). If you have any questions about the data don't hesitate to call me at 508-934-3133.