

## FAQs for Bioburden

### **Q: What is a bioburden test?**



**A:** A bioburden test determines the approximate number of microorganism on or in a product. Results are usually reported as Colony Forming Units (CFUs) rather than “quantity of microorganisms” since some microorganisms are on your product in clumps rather than individually and in a bioburden test we cannot distinguish between the two.

### **Q: What does the “<” mean in the final report?**

**A:** When no microorganisms are recovered in the bioburden test we use the limit of detection with a “<” in the final report. The limit of detection is usually based on the volume of extraction solution placed into the bottle with the product compared to the volume of solution which is tested after the extraction. For example: If 300 mL of solution are added to the bottle with the product and 100 mL of solution are filtered after the extraction the volume factor would be 300/100 which is 3. Any samples with zero microorganisms on the plate will be reported as <3.

### **Q: What does the factor mean?**

**A:** Usually the factor is due to the volume of extraction solution placed into the bottle with the product compared to the volume of solution which is tested after the extraction. For example: If 300 mL of solution are added to the bottle with the product and 100 mL of solution are filtered after the extraction the volume factor would be 300/100 which is 3.

### **Q: Why is the spore factor different from the other factors?**

**A:** The spore test requires a heat shock procedure which is where a portion of the extraction solution is heated at 80-85 °C for 10 minutes. This procedure is not possible with large volumes of solution, so often smaller volumes of solution are tested for the spore test than are tested for aerobic bacteria and fungi.

### **Q: Why are my spore results higher than my other results?**

**A:** Often due to the spore test being performed using a smaller volume of media, there is more statistical error in the results. Therefore it is possible that the spore results may be equal to or slightly higher than the aerobic bacterial results. If the spore results are significantly higher than the aerobic bacteria results, contact the Study Director.

### **Q: When is my study going to be completed?**

**A:** A typical bioburden test take approximately 7-10 days to complete once the test has begun. Therefore, it is usually correct to add 7-10 days onto the Start Date which is listed on the secure web site.

**Q: Do you still have the samples after the test?**

**A:** Unless previously requested on the Sample Submission Form, samples tested for bioburden are discarded on the same day they are tested.

**Q: How long do you hold the plates after testing?**

**A:** Usually any plates which contain growth are held in a refrigerator for approximately 2 weeks after being counted.

**Q: What does aerobic/spore/anaerobic/fungal testing mean?**

**A:** **Aerobic** bacterial testing provides the approximate quantity of microorganisms which are present on your product which can grow in the presence of oxygen with the nutrients provided in the growth medium used (usually trypticase soy agar or TSA, also called soybean casein digest agar or SCDA).

**Spore** testing provides you with an approximate quantity of your aerobic bacteria which have the capability to form spores. Spores will usually also grow in the aerobic bacterial test also.

**Anaerobic** testing provides you with the approximate quantity of microorganisms which are present on your product which can grow in the absence of oxygen with the nutrients provided in the growth medium used (usually trypticase soy agar or TSA, also called soybean casein digest agar or SCDA).

**Fungal** testing provides the approximate quantity of molds or yeasts which are present on your product which can grow in the presence of oxygen with the nutrients provided in the growth medium used (usually acidified potato dextrose agar (PDA) or Saboraud dextrose agar (SDA)).

Please feel free to call the lab directly for additional information or with study related questions.

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