

HRB 690 Internship
Deliverable 1
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Questions this literature review is attempting to answer.

Regulatory Framework

What are the requirements for microbial testing? GMP?

Industry Standards

How does the industry currently test for microbial contamination?

What tests are performed?

Resources:

3M. (2016). 3M™ Petrifilm™ E. coli/Coliform Count Plates. [online] Retrieved from:
<https://multimedia.3m.com/mws/media/2362460/petrifilm-ecoli-coliform-interpretation-guide.pdf>

This goes over the procedure for counting colonies on the petrifilm and shows examples of different types of clusters that would be seen by gas producing colonies. Does not include details about setup or prep work involved.

3M. (2016). 3M™ Petrifilm™ Rapid aerobic. [online] Retrieved from:
<http://multimedia.3m.com/mws/media/10447220/3m-petrifilm-rapid-aerobic-count-interpretation-guide-anz.pdf>

3M. (2016). 3M™ Petrifilm™ Rapid Yeast and Mold Count Plate. [online] Retrieved from:
<https://multimedia.3m.com/mws/media/13886780/rapid-yeast-and-mould-interpretation-guide.pdf>

American Herbal Products Association. (2014). Recommended Microbial Limits for Botanical Ingredients (in colony-forming units (cfu)/g). Retrieved from
http://www.ahpa.org/Portals/0/PDFs/Policies/14_0206_AHPA_micro_limits_comparisons.pdf

Araújo, M. & Bauab, T. (2012). Microbial Quality of Medicinal Plant Materials in Latest Research into Quality Control, Dr. Isin Akyar (Ed.), InTech, DOI: 10.5772/51072. Retrieved from: <https://www.intechopen.com/books/latest-research-into-quality-control/microbial-quality-of-medicinal-plant-materials>

Ball, P. (n.d.) Using petrifilm in student microbiology studies. Southern Biological. Retrieved from https://file.southernbiological.com/Assets/WorkshopNotes/WorkshopNotes_Petrifilm.pdf

FDA Current Good Manufacturing Practice in Manufacturing, Packaging, Labeling, or Holding Operations for Dietary Supplements. 21 C.F.R. §111 (2007). Retrieved from <https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfcfr/CFRSearch.cfm?CFRPart=111>

Mead, W. (2012). Dietary supplement good manufacturing practices. New York, NY: Informa Healthcare.

Myers, S. (2014). Identity, purity, strength, composition: Testing under the dietary supplement GMPs. Natural Products Insider, Special Report, 1-7. Retrieved from https://www.naturalproductsinsider.com/~media/Files/Nutrition/Ebooks/2014/06/06_14INS_Testing%20Report_s.pdf

Riverside. (n.d.). How to write an experimental design in science. Riverside Local School District, Painesville, OH. Retrieved from <http://www.riversidelocalschools.com/Downloads/how%20to%20write%20an%20experimental%20design%20in%20science.pdf>

Sanders, E. R. (2012). Aseptic Laboratory Techniques: Volume Transfers with Serological Pipettes and Micropipettors. Journal of Visualized Experiments : JoVE, (63), 2754. Advance online publication. <http://doi.org/10.3791/2754>. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3941987/>

World Health Organization (1998). Quality control methods for herbal materials. Retrieved from <http://apps.who.int/medicinedocs/documents/h1791e/h1791e.pdf>

