

US EPA ARCHIVE DOCUMENT



**US Environmental Protection Agency
Office of Pesticide Programs**

**2014 Technical Workshop on Antimicrobial Efficacy
Test Methods and Activities Background Materials**

February 18-19, 2014

2014 Technical Workshop on Antimicrobial Efficacy Test Methods and Activities Background Materials

Day One (February 18, 2014)

1. EPA Microbiology Laboratory Branch Standard Operating Procedures (<http://www.epa.gov/pesticides/methods/atmpa2z.htm>)
 - a. **MB-21-02:** Quantitative Three Step Method for Measuring the Efficacy of Liquid Sporicides against Spores of *Bacillus subtilis* on Hard Non-porous and Porous Surfaces
 - b. **MB-28-01:** Production of *Clostridium difficile* Spores for Use in Efficacy Evaluation of Antimicrobial Agents
 - c. **MB-31-01:** Quantitative Disk Carrier Test Method (QCT-2) Modified for Testing Antimicrobial Products Against Spores of *Clostridium difficile* (ATCC 43598) on Inanimate, Hard, Non-porous Surfaces

2. Standards (AOAC International and ASTM)
 - a. **ASTM Standard E2197-11.** Standard Quantitative Disk Carrier Test Method for Determining Bactericidal, Virucidal, Fungicidal, Mycobactericidal and Sporocidal Activities of Chemicals. ASTM International 2011.
 - b. **ASTM E2839-11:** Standard Test Method for Production of *Clostridium difficile* Spores for Use in Efficacy Evaluation of Antimicrobial Agents. ASTM International 2011.
 - c. **ASTM E2895-13:** Standard Test Method for Producing High Titers of Viable and Semi-Purified Spores of *Clostridium difficile* using Liquid Medium. ASTM International 2013.
 - d. **ASTM E2896-12:** Standard Test Method for Quantitative Petri Plate Method (QPM) for Determining the Effectiveness of Antimicrobial Towelettes. ASTM International 2012.
 - e. Official Methods of Analysis. **Method 2008.05.** Efficacy of Liquid Sporicides Against Spores of *Bacillus subtilis* on Hard Nonporous and Porous Surfaces, Quantitative Three Step Method. Posted March 2013. AOAC INTERNATIONAL, Gaithersburg, MD.

3. Guidance: Guidance for the Efficacy Evaluation of Products with Sporocidal Claims against *Clostridium Difficile* (<http://www.epa.gov/oppad001/cdif-guidance.html>).

Day Two (February 19, 2014)

1. EPA Microbiology Laboratory Branch Standard Operating Procedures (<http://www.epa.gov/pesticides/methods/atmpa2z.htm>)
 - a. **MB-19-02**: Standard Operating Procedure for Growing a *Pseudomonas aeruginosa* Biofilm using the CDC Biofilm Reactor.
 - b. **MB-20-01**: Single Tube Method for Measuring Disinfectant Efficacy Against Biofilm Grown in the CDC Biofilm Reactor.
 - c. **MB-25-02**: OECD Quantitative Method for Evaluating Bactericidal Activity of Microbicides Used on Hard, Non-Porous Surfaces.

2. Standards (AOAC International and ASTM)
 - a. Official Methods of Analysis. **Method 955.15**. Testing Disinfectants Against *Staphylococcus aureus*, Use-Dilution Method. Posted September 2013. AOAC INTERNATIONAL, Gaithersburg, MD.
 - b. Official Methods of Analysis. **Method 964.02**. Testing Disinfectants Against *Pseudomonas aeruginosa*, Use-Dilution Method. Posted September 2013. AOAC INTERNATIONAL, Gaithersburg, MD.
 - c. Official Methods of Analysis. **Method 961.02**. Germicidal Spray Products as Disinfectants. Posted March 2013. AOAC INTERNATIONAL, Gaithersburg, MD.
 - d. Official Methods of Analysis. **Method 965.12**. Tuberculocidal Activity of Disinfectants. 18th Ed., 2012. AOAC INTERNATIONAL, Gaithersburg, MD.
 - e. **ASTM E2562-12**: Standard Test Method for Quantification of *Pseudomonas aeruginosa* Biofilm Grown with High Shear and Continuous Flow Using CDC Biofilm Reactor. ASTM International 2012.
 - f. **ASTM E2871-12**: Standard Test Method for Evaluating Disinfectant Efficacy against *Pseudomonas aeruginosa* Biofilm Grown in CDC Biofilm Reactor using Single Tube Method. ASTM International 2012.
 - g. **ASTM E2896-12**: Standard Test Method for Quantitative Petri Plate Method (QPM) for Determining the Effectiveness of Antimicrobial Towelettes. ASTM International 2012.

3. Guidance: Revisions to the Performance Standard for the AOAC Use-dilution Methods for *Staphylococcus aureus* (955.15) and *Pseudomonas aeruginosa* (964.02). November 26, 2013.
(http://www.epa.gov/oppad001/umd_performance_standard_revision_document.pdf)