

CGCI Industrial Hygiene Laboratory  
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Oakwood Georgia, 30566  
Federal Contractor Registry  
Commercial and Governmental (CAGE) Code 82R61

**Disk-diffusion method -general determination of antibacterial efficacy of solution**

TSA Agar-Bacteria December 9<sup>th</sup> 72F°/23.33°C  
Exposure to exterior/interior open air (5 min)  
60 lumens day 1

TSA Agar-Bacteria December 17<sup>th</sup> 72F°/23.33°C  
60 lumens Day 8 8/24 hr periods

**Inoculum : BigShot Maxim Concentrate**

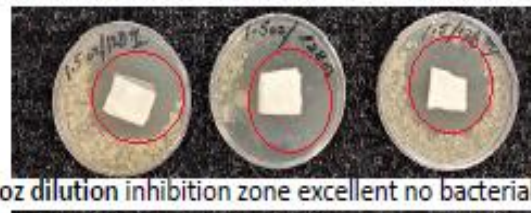
- Control: No Exposure: No solution added to 1inch sq sterile gauze
- Control Exposed: No solution added to 1inch sq sterile gauze
- Exposed 1.5oz dilution: Into clean water then applied to 1inch sq sterile gauze.
- Exposed 4 oz dilution: Into clean water then applied to 1inch sq sterile gauze.



Results: after 8 - 24-hour periods.



Exposed not treated-bacteria covers plate gauze



1.5 oz dilution inhibition zone excellent no bacterial growth



4oz dilution – almost no growth in the TSA agar- excellent bacterial inhibition.

*Purpose and Scope: The Kirby-Bauer test, known as the disk-diffusion method, is the most widely used antibiotic susceptibility test in determining what choice of antibiotics should be used when treating an infection. This method relies on the inhibition of bacterial growth measured under standard conditions.*



Typical disk diffusion using antibiotic treated disk