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(54) **METHOD OF KILLING A BACTERIA WITH A PLANT-BASED BIOCIDAL SOLUTION**

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(58) **Field of Classification Search**
None
See application file for complete search history.

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(57) **ABSTRACT**

The present invention is directed to a method and a composition for producing and using a plant-based biocidal solution. The plant-based biocidal solution contains a bioactive material and a plant-based substance formed from the cellular material of a plant. The plant-based substance is capable of binding to the bioactive material. In some embodiments, the bioactive material is hydrogen peroxide. The hydrogen peroxide can be added exogenously or generated endogenously. In accordance with further embodiments, the plant-based biocidal solution can be applied to a target, thereby impairing the target. In some embodiments, the target can be a pathogen. In accordance with another embodiment, the plant-based substance of the plant-based biocidal solution can form a microscopic cluster, a complex, or an aggregate for providing sufficient bioactive material to overcome the defense mechanism of the target.

8 Claims, 4 Drawing Sheets