CALIFORNIA STATE SCIENCE FAIR
2006 PROJECT SUMMARY

Name(s)
Romualdo C. Firme, Jr.

Project Number
S1305

Project Title
Bacteria: Iodine and Chlorine

Abstract

Objectives/Goals

Complete Abstract:
Familiar household products such as: Clorox, Iodine, Anti-bacterial soap, etc., can help aid us in getting rid of bacteria that lies around us everyday. Why is this important? How can this help us? Well, the bacteria that is present all around us and the things we touch can cause us to become ill and preventing or killing them can help in our well-being. Being a person that tries to avoid bacteria, I have always wondered what products can kill bacteria and how well they do their job. This brought me to iodine and chlorine. For my science project, I decided to use these halogens as my anti-bacterial agents. I placed the chlorine and iodine in different dilutions into sterile cups that contained a hundred ml. of water and five ml. of bacteria, from a nutrient broth. I then plated a drop of the solution I had made into a prepared Petri-dish, containing agar. Throughout my whole experiment, I made sure to use sterile techniques and made sure everything I used was sterilized and/or autoclaved. After a day or two of letting the bacteria colonies grow, I calculated my data and made my observations. For my Iodine group, I had one compromised dish, which was probably due to bad technique. However, my Chlorine group came out successfully with fewer colonies in the higher concentrations. Moreover, my data showed significance between the control and test groups. Basically, my data and the results of my whole experiment came out to be what I had expected during the beginning of this project.

Summary Statement

My project demonstrates the efficiency of Iodine's and Chlorine's bacterial-killing-abilities.

Help Received

Biology teacher, Mr. Callaway, supervised/assisted during the experimenting in his lab.