

43 /03 13.11.2020

To the director of "Elixir Global" Ltd.

Mr. Papuna Papiashvili

Under the agreement of October 30, 2020, a research project was conducted in the examination laboratory of the scientific-research firm "Gamma" which envisaged the study of the antimicrobial activity of 0.1 and 1.0% solutions of "Elixir for water purification" on microbial strains of Salmonella and E.Coli.

Microbial strains were taken in the experiment: E. coli ATCC 25922 and Salmonella typhimurium ATCC 14028.

The concentration of each strain taken in the experiment - the number of cells in 1 ml of sterile saline was 105. The exposure time was 0.5 min.

Cultivation was carried out on suitable nutrient soils:

1. E. coli - Chromogenic Coliform Agar ISO formulation;
2. Salmonella - ES Agar.

Incubation was performed at 37°C for 24 h.

In the study of microbial sterility, disinfectant solution and microbial suspension are taken in equal volumes, exposure time - 0.5 min.

The obtained results are presented in Table №1, №2 and photos (1-6).

The numbers on the photo of the fins indicate:

1-control; 2- Disinfectant solution "Elixir for water purification" Impact.

Table №1

0.1% disinfectant solution "Elixir for water purification"

Impact on microbial strains of E. Coli and Salmonella

Name the stems of microorganisms	control	After 0.5 min of exposure to the disinfectant solution
E coli ATCC 25922	10^5	0
Salmonella typhimurium ATCC 14028	10^5	0

Table №2

1.0% disinfectant solution "Elixir for water purification"

Impact on microbial strains of E. Coli and Salmonella

Name the stems of microorganisms	control	After 0.5 min of exposure to the disinfectant solution
E coli ATCC 25922	10^5	0
Salmonella typhimurium ATCC 14028	10^5	0

Conclusion: 0.1 and 1.0% disinfectant solutions "Elixir for water purification" cause the death of strains of E coli ATCC 25922 and Salmonella typhimurium ATCC 14028 in 0.5 minutes.



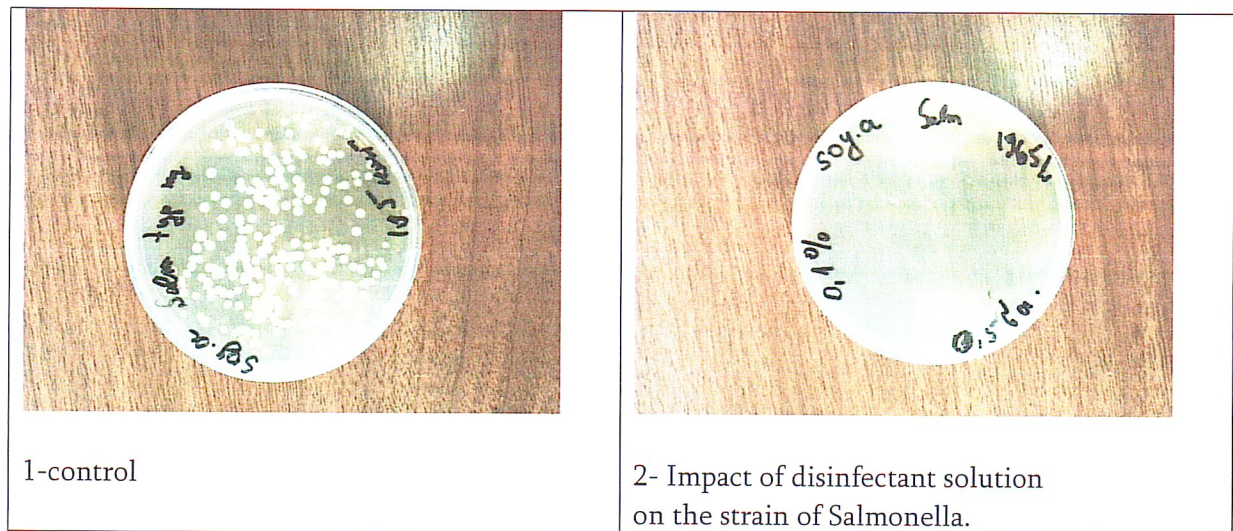
Picture 1. 1.0% disinfectant solution "Elixir for water purification".



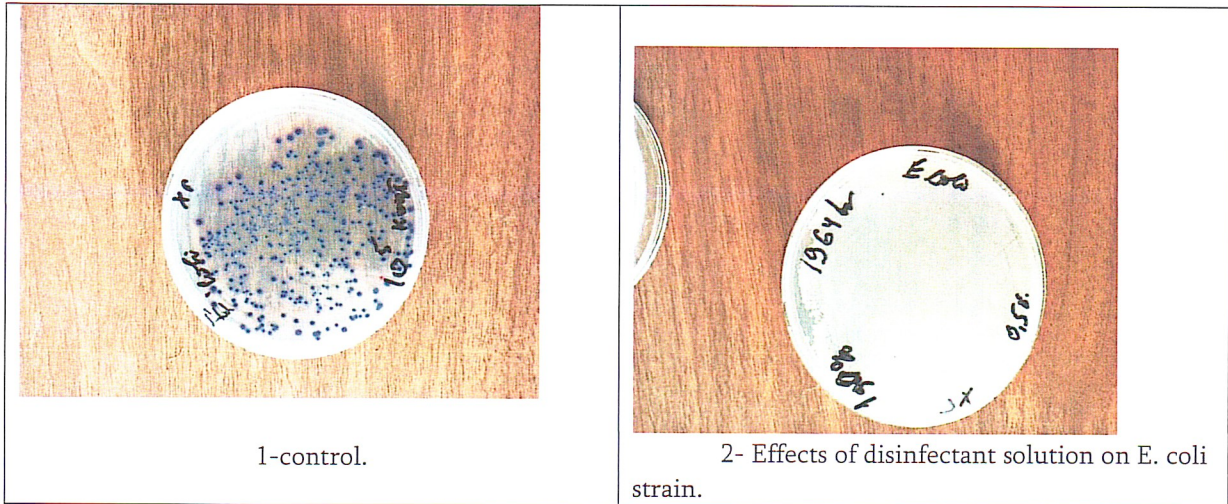
Figure 2. 0.1% disinfectant solution "Elixir for water purification".



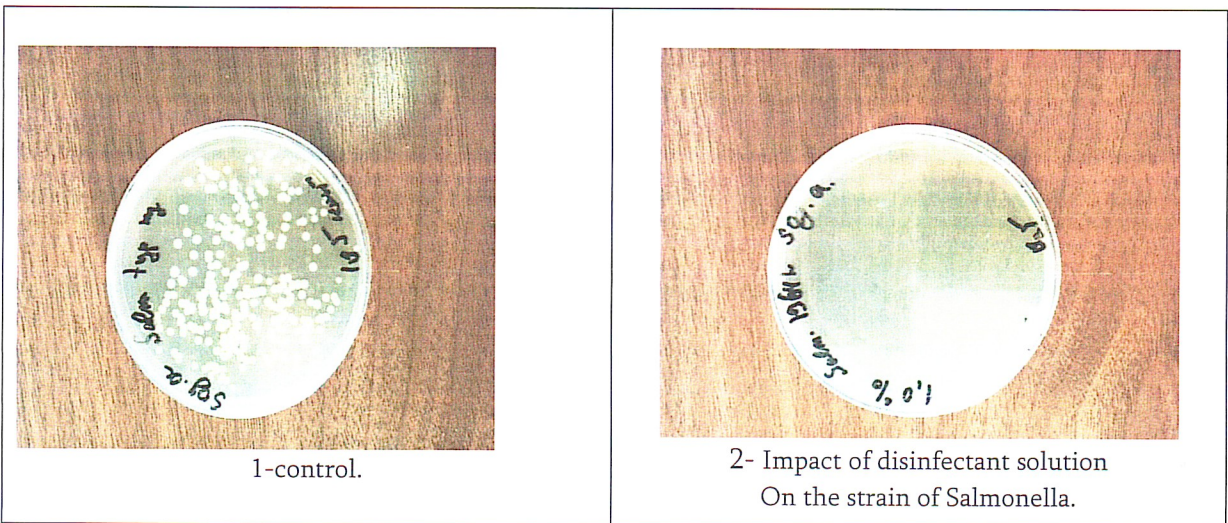
Picture 3. Action of 0.1% disinfectant solution "Elixir for water purification" E. coli ATCC 25922 "strain



Picture 4. Action of 0.1% disinfectant solution "Elixir for water purification" on the strain of "Salmonella typhimurium ATCC 14028".



Picture 5. Action of 1.0% disinfectant solution "Elixir for water purification" E. coli ATCC 25922 "strain



Picture 6. Action of 1.0% disinfectant solution "Elixir for water purification" on the strain of "Salmonella typhimurium ATCC 14028".

T.Adami

Scientific-research firm "Gamma" Ltd.

vice president

