Gamma
SCIENTIFIC RESEARCH FIRM
სამეცნიერო-კვლევითი ფირმა "გამა"

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Director of "Elixir Global" Ltd.

Mr. Papuna Papiashvili

Mr. Papuna,

Under the agreement of December 18, 2020, a research project was conducted in the testing laboratory of the scientific-research firm "Gamma", which envisaged the study of the antimicrobial activity of 0.05% solution "Elixir for water purification" on E.Coli and Salmonella microbial strains.

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

Concentration of each strain taken in the experiment - number of cells

1 ml in sterile saline was 10^5. Exposure time was 60 seconds.

Cultivation was carried out on appropriate nutrient soils: E. coli - Cromogenic Coliform Agar ISO formulation;

1. Salmonella – EC Agar.

Incubation was performed at 370C for 24 h.

In the study of microbial sterility, disinfectant solution and microbial suspension are taken in equal

volumes, exposure time - 60 seconds.

The obtained results are presented in Table №1 and in the photos (1-5).

The numbers on the photo of the fins indicate: 1-control:

2- Disinfectant solution "Elixir for water purification" Impact.

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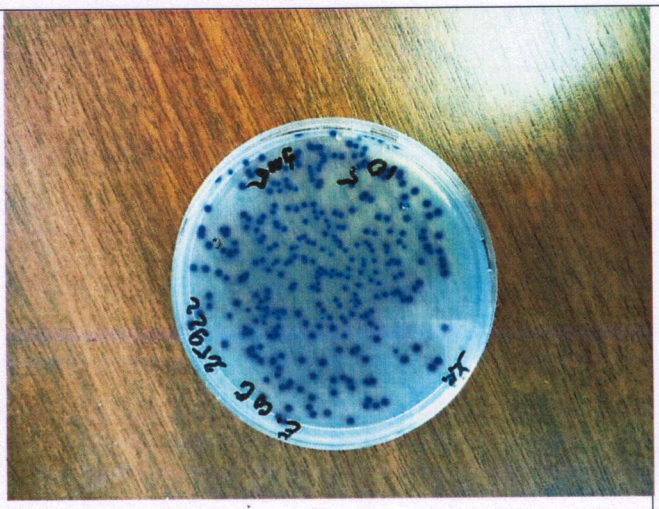
Table №1

0.05% disinfectant solution "Elixir for water purification"
Impact on microbial strains of E. Coli and Salmonella

The strains of microorganisms	Control	After 60 seconds of exposure to the disinfectant solution
E coli ATCC 25922	10^5	0
Salmonella typhimurium ATCC 14028	10^5	0

Conclusion: 0.05% disinfectant solution "Elixir for water purification" cause the death of strains of E coli ATCC 25922 and Salmonella typhimurium ATCC 14028 in 60 seconds.

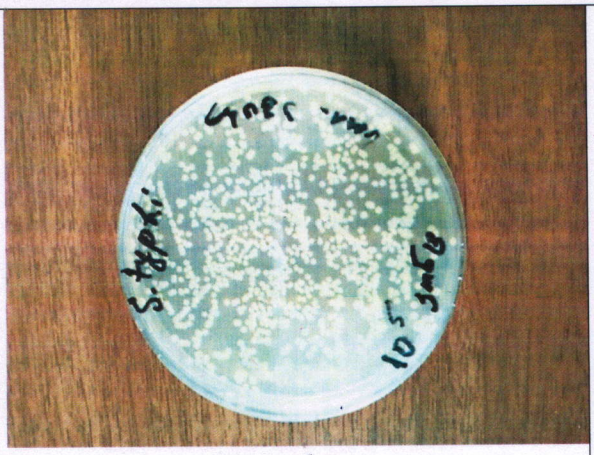
Picture 1. 0.05% disinfectant solution "Elixir for water purification"



1-control

2- Effects of disinfectant solution on E. coli strain.

Picture 2. Action of 0.05% disinfectant solution "Elixir for water purification" E. coli ATCC 25922 "strain



1-control

2- Impact of disinfectant solution on the strain of Salmonella

Picture 3. Action of 0.05% disinfectant solution "Elixir for water purification" on the strain of "Salmonella typhimurium ATCC 14028".

T.Adamia

Scientific-research firm "Gamma" Ltd.

Vice president.