CLAIMS

1. An aqueous hydrogen peroxide solution, which is used for decreasing the number of bacteria, wherein said solution comprises hydrogen peroxide, a phosphate salt and an aluminum salt as essential components.

2. The aqueous hydrogen peroxide solution according to claim 1, wherein the phosphate salt is at least one selected from the group consisting of tripotassium phosphate, trimagnesium phosphate, diammonium hydrogen phosphate, ammonium dihydrogen phosphate, dipotassium hydrogen phosphate, potassium dihydrogen phosphate, disodium hydrogen phosphate, sodium dihydrogen phosphate, trisodium phosphate and calcium bis(hydrogen phosphate).

3. The aqueous hydrogen peroxide solution according to claim 1, wherein the phosphate salt is a hydrogenphosphate.

4. The aqueous hydrogen peroxide solution according to any one of claims 1 to 3, wherein the additive concentration of the phosphate salt is 1 to 18 mg/kg.

5. The aqueous hydrogen peroxide solution according to any one of claims 1 to 4, wherein the aluminum salt is aluminum potassium sulfate.

6. The aqueous hydrogen peroxide solution according to any one of claims 1 to 5, wherein the additive concentration of the aluminum salt is 1 to 4 mg/kg.

7. The aqueous hydrogen peroxide solution according to any one of claims 1 to 6, which comprises at least one acid and/or salt selected from the group consisting of L-ascorbic acid and a salt thereof, ethylenediamine tetraacetate, citric acid and a salt thereof, gluconic acid and a salt thereof, L-glutamic acid and a salt thereof, a silicate, a nitrate, a carbonate, a pyrophosphate, and a sulfate.

8. The aqueous hydrogen peroxide solution according to claim 7, wherein the additive concentration of the acid and/or salt is 2 to 12 mg/kg.

9. The aqueous hydrogen peroxide solution according to any one of claims 1 to 8, wherein the concentration of the hydrogen peroxide is 30 wt% to 40 wt%.

10. A disinfectant obtained by using the aqueous hydrogen peroxide solution according to any one of claims 1 to 9.

11. A method for producing the aqueous hydrogen peroxide solution according to any one of claims 1 to 9, comprising adding a phosphate salt and an aluminum salt to an aqueous hydrogen peroxide solution as a raw material.

12. A disinfection method, comprising mixing air with a mist and/or gas of the aqueous hydrogen peroxide solution according to any one of claims 1 to 9 and then bringing the resultant mixture into contact with a material to be disinfected.

13. The disinfection method according to claim 12, wherein air is heated to be accompanied by the mist and/or gas of the aqueous hydrogen peroxide solution when the aqueous hydrogen peroxide solution is brought into contact with the material to be disinfected.

14. The disinfection method according to claim 12 or 13, wherein the aqueous hydrogen peroxide solution is heated to 100 to 150°C to be brought into contact with the material to be disinfected.

15. The disinfection method according to any one of claims 12 to 14, wherein the material to be disinfected is a packaging container, a food machinery, a plastic bottle or a plastic bottle preform.

16. The disinfection method according to any one of claims 12 to 14, wherein the material to be disinfected is a closed space.

17. The disinfection method according to claim 16, wherein the closed space is an automobile, a clean room for electronics industry, a living space, a medical space, a kitchen, a cooking place, a vehicle or an aircraft.

18. The disinfection method according to any one of claims 12 to 14, wherein an apparatus for generating the mist of the aqueous hydrogen peroxide solution and/or hydrogen peroxide vapor is brought into a facility to generate the mist of the aqueous hydrogen peroxide solution and/or hydrogen peroxide vapor, thereby

decreasing the number of bacteria in the facility.

19. The disinfection method according to claim 18, wherein the facility is a toilet facility, a waste processing facility or a livestock barn.

CLAIMS

1. An aqueous hydrogen peroxide bactericidal solution, wherein said solution comprises:

a) hydrogen peroxide;

b) a phosphate salt;

c) an aluminum salt; and

d) at least one acid and/or salt selected from the group consisting of L-ascorbic acid and a salt thereof, ethylenediamine tetraacetate, citric acid and a salt thereof, gluconic acid and a salt thereof, L-glutamic acid and a salt thereof, a silicate, a nitrate, a carbonate, a pyrophosphate, and a sulfate;

wherein the additive concentration of the acid and/or salt is 2 to 12 mg/kg.

2. The solution according to claim 1, wherein the phosphate salt is at least one selected from the group consisting of tripotassium phosphate, trimagnesium phosphate, diammonium hydrogen phosphate, ammonium dihydrogen phosphate, dipotassium hydrogen phosphate, potassium dihydrogen phosphate, disodium hydrogen phosphate, sodium dihydrogen phosphate, trisodium phosphate and calcium bis(hydrogen phosphate).

3. The solution according to claim 1, wherein the phosphate salt is a hydrogenphosphate.

4. The solution according to any one of claims 1 to 3, wherein the additive concentration of the phosphate salt is 1 to 18 mg/kg.

5. The solution according to any one of claims 1 to 4, wherein the aluminum salt is aluminum potassium sulfate.

6. The solution according to any one of claims 1 to 5, wherein the additive concentration of the aluminum salt is 1 to 4 mg/kg.

7. The solution according to any one of claims 1 to 6, wherein the concentration of the hydrogen peroxide is 30 wt% to 40 wt%.

8. A method for producing the solution according to any one of claims 1 to 7, comprising adding a phosphate salt, an aluminum salt and at least one acid and/or salt to an aqueous

hydrogen peroxide solution as a raw material.

9. A disinfection method, comprising mixing air with a mist and/or gas of the solution according to any one of claims 1 to 7, and then bringing the resultant mixture into contact with a material to be disinfected.

10. The disinfection method according to claim 9, wherein air is heated to be accompanied by the mist and/or gas of the solution when the solution is brought into contact with the material to be disinfected.

11. The disinfection method according to claim 9 or claim 10, wherein the solution is heated to 100 to 150°C to be brought into contact with the material to be disinfected.

12. The disinfection method according to any one of claims 9 to 11, wherein the material to be disinfected is a packaging container, a food machinery, a plastic bottle or a plastic bottle preform.

13. The disinfection method according to any one of claims 9 to 11, wherein the material to be disinfected is a closed space.

14. The disinfection method according to claim 13, wherein the closed space is an automobile, a clean room for electronics industry, a living space, a medical space, a kitchen, a cooking place, a vehicle or an aircraft.

15. The disinfection method according to any one of claims 9 to 11, wherein an apparatus for generating the mist of the aqueous hydrogen peroxide solution and/or hydrogen peroxide vapor is brought into a facility to generate the mist of the aqueous hydrogen peroxide solution and/or hydrogen peroxide vapor, thereby decreasing the number of bacteria in the facility.

16. The disinfection method according to claim 15, wherein the facility is a toilet facility, a waste processing facility or a livestock barn.