CLAIMS

1. A method for cleaning an ultrapure water supply system or component part thereof comprising the steps of:

(a) contacting said system or component part with an alkaline cleaning solution;

(b) after said step (a), rinsing said system or component part;

(c) after said step (b), contacting said system or component part with an acidic solution; and

(d) then, rinsing said system or component part.

2. A method as recited in claim 1 wherein said ultrapure water system comprises component parts composed of polyvinylidene fluoride (PDVF).

3. A method as recited in claim 2 wherein said alkaline cleaning solution comprises NH_4OH or alkali metal hydroxide.

4. A method as recited in claim 3 wherein said alkaline cleaning solution comprises NH_4OH.

5. A method as recited in claim 3 wherein said alkaline cleaning solution comprises alkali metal hydroxide, said alkali metal hydroxide comprising a member selected from the group consisting of NaOH and KOH.

6. A method as recited in claim 5 wherein said alkali metal hydroxide comprises NaOH.

7. A method as recited in claim 2 wherein said acidic solution comprises a mineral acid.

8. A method as recited in claim 7 wherein said mineral acid is a member selected from the group consisting of nitric acid, sulphuric acid, and hydrochloric acid.

9. A method as recited in claim 8 wherein said mineral acid comprises nitric acid.

10. A method as recited in claim 2 wherein said method steps are conducted at ambient temperature.

11. A method as recited in claim 3 wherein said NH_4OH or alkali metal hydroxide is present in said alkaline solution in a concentration of about 0.5-200 ppm.

12. A method as recited in claim 11 wherein said NH_4OH or alkali metal hydroxide is present in said alkaline solution in a concentration of about 2 to about 10 ppm.

13. A method as recited in claim 7 wherein said mineral acid is present in said acidic solution in an amount of about 0.5 ppm to 200 ppm.

14. A method as recited in claim 13 wherein said mineral acid is present in said acidic solution in an amount of about 2 to about 10 ppm.

15. A method as recited in claim 4 wherein step (a) is performed for a period of about 12 hours to about 15 days.

16. A method as recited in claim 15 wherein step (a) is performed for a period of about two to about five days.

17. A method as recited in claim 1 wherein said step (c) is performed for a period of 12 hours to about 15 days.

18. A method as recited in claim 17 wherein said step (c) is performed for a period of about two to about five days.

19. A method as recited in claim 1 wherein said rinsing steps (b) and (d) comprise dynamic rinsing steps wherein a rinsing solution is flowed through said ultrapure water supply system or component part at a flow rate of 0.2 m/s or greater.

20. A method as recited in claim 1 wherein said steps (a)-(d) are conducted at temperatures of about 10-40 °C.

21. A method as recited in claim 20 wherein said steps (a)-(d) are conducted at temperatures of about 20-30 °C.

22. A method as recited in claim 20 wherein said ultrapure water supply system is a newly constructed or newly installed supply system.

CLAIMS

1. A method for cleaning an ultrapure water supply system or component part thereof comprising the steps of:

(a) contacting said system or component part with an alkaline cleaning solution;

(b) after said step (a), rinsing said system or component part;

(c) after said step (b), contacting said system or component part with an acidic solution; and

(d) then, rinsing said system or component part.

2. A method as recited in claim 1 wherein said ultrapure water system comprises component parts composed of polyvinylidene fluoride (PDVF).

3. A method as recited in claim 2 wherein said alkaline cleaning solution comprises NH_4OH or alkali metal hydroxide.

4. A method as recited in claim 3 wherein said alkaline cleaning solution comprises alkali metal hydroxide, said alkali metal hydroxide comprising a member selected from the group consisting of NaOH and KOH.

5. A method as recited in claim 2 wherein said acidic solution comprises a mineral acid, selected from the group consisting of nitric acid, sulphuric acid, and hydrochloric acid.

6. A method as recited in claim 2 wherein said method steps are conducted at ambient temperature.

7. A method as recited in claim 3 wherein said NH_4OH or alkali metal hydroxide is present in said alkaline solution in a concentration of about 0.5-200 ppm.

8. A method as recited in claim 7 wherein said mineral acid is present in said acidic solution in an amount of about 0.5 ppm to 200 ppm.

9. A method as recited in claim 3 wherein step (a) is performed for a period of about 12 hours to about 15 days.

10. A method as recited in claim 1 wherein said step (c) is performed for a period of 12 hours to about 15 days.

11. A method as recited in claim 17 wherein said step (c) is performed for a period of about two to about five days.

12. A method as recited in claim 1 wherein said rinsing steps (b) and (d) comprise dynamic rinsing steps wherein a rinsing solution is flowed through said ultrapure water supply system or component part at a flow rate of 0.2 m/s or greater.

13. A method as recited in claim 1 wherein said steps (a)-(d) are conducted at temperatures of about 10-40 °C.

14. A method as recited in claim 13 wherein said steps (a)-(d) are conducted at temperatures of about 20-30 °C.

15. A method as recited in claim 13 wherein said ultrapure water supply system is a newly constructed or newly installed supply system.