

WHAT IS CLAIMED IS:

1. A container for containing a raw material of a chemical liquid used for semiconductor manufacturing, the container comprising:

an inner wall, constructed with a stainless steel material or coated with a resin material; and

a solvent-treated surface of the inner wall, wherein the solvent-treated surface comes in contact with the raw material that includes a solvent having a content of iron (Fe) or calcium (Ca) atoms of 1 ppb or less and a content of organic impurities of 10 mass ppm or less during a course of being contained in the container.

2. The container of claim 1, the stainless steel material used in constructing the inner wall has a 2B surface finish or higher.

3. The container of claim 2, wherein the stainless steel material has an arithmetic average roughness Ra of about 0.5 μ m or less.

4. The container of claim 1, wherein the inner wall is coated with a phenolic resin lining material.

5. The container of claim 1, wherein the solvent-treated surface comprises a water-treated surface, which is configured by treating a surface of the inner wall with deionized water.

6. The container of claim 1, wherein the solvent-treated surface comprises an organic solvent-treated surface, which is configured by treating a surface of the inner wall with the solvent included in the raw material.

7. The container of claim 1, wherein the solvent-treated surface comprises a water-organic solvent-treated surface, which is configured by treating a surface of the inner wall with deionized water, followed by treating the surface of the inner wall with the solvent included in the raw material.

8. The container of claim 1, wherein a material of the container includes stainless steel or carbon steel.

9. A method of preparing a container for containing a raw material of a chemical liquid, the method comprising:

providing a container having an inner wall that is constructed with a stainless steel material or coated with a resin material;

treating a surface of the inner wall with water; and

treating the surface the inner wall with an organic solvent, wherein the organic solvent includes a solvent included in the raw material.

10. The method of claim 9, wherein the treating of the surface of the inner wall with the water comprises:

dousing an interior of the container with the water;

allowing the water to remain in the container for a first time period;
draining the water from the container; and
drying the container.

11. The method of claim 9, wherein the treating of the surface of the inner wall with the organic solvent comprises:

fully or partially filling the container with the organic solvent;
agitating or sloshing the organic solvent in the container;
allowing the organic solvent to remain in the container for a second time period;
draining the organic solvent from the container; and
drying the container.

12. The method of claim 9, wherein the treating of the surface of the inner wall with the organic solvent is performed after the treating of the surface of the inner wall with the water is completed.

13. The method of claim 12, wherein the treating of the surface of the inner wall with the water is performed at least once.

14. The method of claim 12, the treating of the surface of the inner wall with the organic solvent is performed at least once.

15. The method of claim 12, wherein a number of particles having a size of 40nm or more is 100 or less per 1 ml of the organic solvent used in the treating of the surface of the inner wall.

16. The method of claim 9, wherein the water used in treating the surface of the inner wall is deionized water having a resistivity up to 18 meg Ohms.

17. The method of claim 9, wherein the organic solvent used in treating surface of the inner wall has a content of iron (Fe) or calcium (Ca) atoms of 1 ppb or less and a content of organic impurities of 10 mass ppm or less.

18. The method of claim 9, wherein the stainless steel material used in constructing the inner wall has a 2B surface finish or higher, and an arithmetic average roughness Ra of about 0.5 μ m or less.

19. The method of claim 9, wherein the resin material used in coating the inner wall comprises a phenolic resin.

20. The method of claim 9, wherein the container is constructed with stainless steel or carbon steel.

21. The method of claim 9, wherein the organic solvent is select from the group consisting of methanol, ethanol, 1-propanol, isopropanol, monomethyl ether, propylene glycol monoethyl ether, propylene glycol monomethyl ether, propylene glycol monopropyl ether, propylene glycol monomethyl ether acetate, ethyl lactate,

methyl methoxypropionate, cyclopentanone, cyclohexanone, γ -butyrolactone, diisoamyl ether, butyl acetate, 4-methyl-2-pentanol, and a combination thereof.

22. A method of preparing a container for carrying a chemical liquid, the method comprising:

providing a container having an inner wall with a microfinish surface; and
treating a surface of the inner wall with a solvent.

23. The method of claim 22, wherein the inner wall is constructed with a stainless steel material having a 2B surface finish or higher.

24. The method of claim 22, wherein the inner wall is coated with a phenolic resin material.

25. The method of claim 22, wherein the step of treating the surface of the inner wall with the solvent comprises:

washing the surface of the inner wall with deionized water; and
washing the surface of the inner wall with an organic solvent, wherein the organic solvent includes at least one solvent contained in the chemical liquid.

26. The method of claim 22, wherein the step of washing the surface of the inner wall with the deionized water is performed for one or more times before

the step of washing the surface of the inner wall with the organic solvent for one or more times.