CLAIMS

[Claim 1]

A pressure feed container configured to store a protective film-forming liquid chemical or a protective film-forming liquid chemical kit that is mixed into the protective film-forming liquid chemical, and to transfer a liquid upon application of pressure to the inside of the container, the protective film-forming liquid chemical being for forming a water-repellent protective film on at least surfaces of recessed portions of an uneven pattern formed on a surface of a wafer containing a silicon element at least at a part of the uneven pattern,

the protective film-forming liquid chemical comprising a nonaqueous organic solvent, a silylation agent, and an acid or a base,

the protective film-forming liquid chemical kit comprising a treatment liquid A containing a nonaqueous organic solvent and a silylation agent, and a treatment liquid B containing a nonaqueous organic solvent and an acid or a base,

the pressure feed container comprising a container body configured to contain a liquid selected from the protective film-forming liquid chemical, the treatment liquid A, and the treatment liquid B, and a liquid flowing nozzle configured such that the liquid flows therethrough to be introduced into the container body and/or to be extracted from the container body,

the container body comprising a metal can body having an inner surface to which resin lining has been applied,

the liquid flowing nozzle being provided with a neutralization mechanism configured to reduce electrostatic potential in the liquid, and a liquid contact portion of the liquid flowing nozzle excluding the neutralization mechanism being formed from a resin material.

[Claim 2]

The pressure feed container according to claim 1,

wherein the neutralization mechanism is formed from a grounded conductive material.

[Claim 3]

The pressure feed container according to claim 2,

wherein the neutralization mechanism is formed such that, in the liquid flowing nozzle, a part of a surface configured to contact the liquid is formed from a grounded conductive material.

[Claim 4]

The pressure feed container according to claim 2,

wherein the neutralization mechanism is formed by providing a grounded conductive material in the liquid flowing nozzle such that the neutralization mechanism is configured to contact the liquid.

[Claim 5]

The pressure feed container according to any one of claims 1 to 4,

wherein the container body is further provided with a neutralization mechanism configured to reduce electrostatic potential in the liquid.

[Claim 6]

The pressure feed container according to claim 5,

wherein the neutralization mechanism provided in the container body comprises a rod-like body in which a grounded conductive material is used to form a part of a surface configured to contact the liquid, and a resin material is used to form a liquid contact portion other than the conductive material.

[Claim 7]

A method for storing a protective film-forming liquid chemical or a protective film-forming liquid chemical kit that is mixed into the protective film-forming liquid chemical in a pressure feed container, the protective film-forming liquid chemical being for forming a water-repellent protective film on at least surfaces of recessed portions of an uneven pattern formed on a surface of a wafer containing a silicon element at least at a part of the uneven pattern,

the protective film-forming liquid chemical comprising a nonaqueous organic solvent, a silylation agent, and an acid or a base,

the protective film-forming liquid chemical kit comprising a treatment liquid A containing a nonaqueous organic solvent and a silylation agent, and a treatment liquid

B containing a nonaqueous organic solvent and an acid or a base,

the pressure feed container comprising: a container body comprising a metal can body having an inner surface to which resin lining has been applied; a liquid flowing nozzle configured such that a liquid selected from the protective film-forming liquid chemical, the treatment liquid A, and the treatment liquid B flows therethrough to be introduced into the container body and/or to be extracted from the container body; and a neutralization mechanism that is provided in the container body and comprises a rod-like body in which a grounded conductive material is used to form a part of a surface configured to contact the liquid, and a resin material is used to form a liquid contact portion other than the conductive material,

the method comprising:

introducing a liquid selected from the protective film-forming liquid chemical, the treatment liquid A, and the treatment liquid B into the pressure feed container while applying pressure to the pressure feed container with an inert gas such that the pressure feed container has an internal pressure of 0.01 to 0.19 MPa in gauge pressure at 45°C; and

storing the liquid in a temperature range from 0°C to 45°C under shaking.

[Claim 8]

A method for transferring a protective film-forming liquid chemical or a protective film-forming liquid chemical kit that is mixed into the protective film-forming liquid chemical by using a pressure feed container configured to transfer a liquid upon application of pressure, the protective film-forming liquid chemical being for forming a water-repellent protective film on at least surfaces of recessed portions of an uneven pattern formed on a surface of a wafer containing a silicon element at least at a part of the uneven pattern,

the protective film-forming liquid chemical comprising a nonaqueous organic solvent, a silylation agent, and an acid or a base,

the protective film-forming liquid chemical kit comprising a treatment liquid A containing a nonaqueous organic solvent and a silylation agent, and a treatment liquid B containing a nonaqueous organic solvent and an acid or a base,

the pressure feed container comprising a container body configured to contain a liquid selected from the protective film-forming liquid chemical, the treatment liquid A, and the treatment liquid B,

the container body comprising a metal can body having an inner surface to which resin lining has been applied, and

the method comprising at least one of (1) and (2) below:

(1) introducing the liquid into the container body through a liquid flowing portion provided with a neutralization mechanism configured to reduce electrostatic potential in the liquid, wherein a liquid contact portion of the liquid flowing portion excluding the neutralization mechanism is formed from a resin material; and

(2) extracting the liquid from the container body containing the liquid through a liquid flowing portion provided with a neutralization mechanism configured to reduce electrostatic potential in the liquid, wherein a liquid contact portion of the liquid flowing portion excluding the neutralization mechanism is formed from a resin material.

[Claim 9]

The method according to claim 8,

wherein the neutralization mechanism is formed from a grounded conductive material.

[Claim 10]

The method according to claim 9,

wherein the neutralization mechanism is formed such that, in the liquid flowing portion, a part of a surface configured to contact the liquid is formed from a grounded conductive material.

[Claim 11]

The method according to claim 9,

wherein the neutralization mechanism is formed by providing a grounded conductive material in the liquid flowing portion such that the neutralization mechanism is configured to contact the liquid.

[Claim 12]

The method according to any one of claims 8 to 11,

wherein the neutralization mechanism contacts the liquid for 0.001 to 100 seconds.

[Claim 13]

The method according to any one of claims 8 to 12,

wherein the liquid flows through the liquid flowing portion at a rate of 0.01 to 10 m/sec.