CLAIMS

1. A hydrogen chloride mixture comprising hydrogen chloride and water, wherein the hydrogen chloride mixture is filled into a filling container so that at least a part of the hydrogen chloride mixture is liquid; a concentration of water in a gas phase is 0.001 mol ppm or more and less than 4.5 mol ppm; and a concentration of water in a liquid phase is 0.01 mol ppm or more and 0.95 mol ppm or less.

2. The hydrogen chloride mixture according to claim 1, wherein a ratio V/G_0 of an internal volume V (unit: L) of the filling container to an initial filling amount G_0 (unit: kg) into the filling container is 1.67 or more and 2.40 or less.

3. A method for producing a hydrogen chloride mixture comprising hydrogen chloride and water, the method including:

a first dehydration step of cooling a hydrogen chloride mixture in which a concentration of water is 1 mol ppm or more, to condense and separate water in the hydrogen chloride mixture;

a second dehydration step of bringing a hydrogen chloride mixture obtained in the first dehydration step into contact with a water adsorbent to allow a concentration of water to be less than 0.5 mol ppm; and

a filling step of filling a filling container with a hydrogen chloride mixture obtained in the second dehydration step so that at least a part of the hydrogen chloride mixture is liquid, and a concentration of water in a liquid phase at a time of completion of the filling is 0.01 mol ppm or more and 0.95 mol ppm or less.

4. The method for producing a hydrogen chloride mixture according to claim 3, wherein at least a part of the filling container comprises stainless steel.

5. The method for producing a hydrogen chloride mixture according to claim 3 or 4, wherein a ratio V/G_1 of an internal volume V (unit: L) of the filling container to an amount G_1 (unit: kg) of the hydrogen chloride mixture filled into the filling container in the filling step is 1.67 or more and 11.8 or less.

6. A filling container configured to be filled with a hydrogen chloride mixture comprising hydrogen chloride and water, wherein the filling container is filled so that at least a part of the hydrogen chloride mixture is liquid; and a concentration of water in a gas phase is 0.001 mol ppm or more and less than 4.5 mol ppm; and a concentration of water in a liquid phase is 0.01 mol ppm or more and 0.95 mol ppm or less.

7. The filling container according to claim 6, wherein a ratio V/G_0 of an internal volume V (unit: L) to an initial filling amount G_0 (unit: kg) of the hydrogen chloride mixture is 1.67 or more and 2.40 or less.

8. The filling container according to claim 6 or 7, wherein the filling container has a capacity of 1 L or more and 2000 L or less.

9. The filling container according to any one of claims 6 to 8, wherein at least a part of the filling container comprises stainless steel.