Claims

Claim 1

A solid substance concentration managing method of managing a concentration of a solid substance which is contained in a residue that is discharged in a reaction product gas processing step included in a trichlorosilane producing method of producing trichlorosilane by reacting metal silicon, tetrachlorosilane, and hydrogen with each other, the solid substance concentration managing method comprising:

a concentration measuring step of measuring the concentration of the solid substance which is contained in an after-crystallization residue that is obtained in a crystallizing step of crystallizing part of aluminum chloride, contained in the residue, by cooling the residue,

the concentration measuring step being carried out before a residue concentrating step of concentrating the after-crystallization residue.

Claim 2

The solid substance concentration managing method as set forth in claim 1, wherein the concentration measuring step is carried out with use of a turbidimeter.

Claim 3

The solid substance concentration managing method as set forth in claim 2, wherein the turbidimeter is provided to a first pipe which branches off from a second pipe through which the after-crystallization residue is transferred.

Claim 4

The solid substance concentration managing method as set forth in claim 3, wherein a pressure inside each of the first pipe and the second pipe is not less than 100 kPa (gage pressure).

Claim 5

A trichlorosilane producing method comprising, as a step, a solid substance concentration managing method recited in any one of claims 1, 2, 3, and 4.