Summary

Technical Problem

[0007] A main object of the present technology is to provide a water treatment technology which exhibits an effect of hypobromous acid well when added to a water system.

Solution to Problem

[0008] As a result of a diligent study to solve the above-mentioned problem, the present inventors have found that it is possible to provide a water treatment technology which exhibits an effect of hypobromous acid well when added to a water system, leading to completion of the present technology.

In an aspect, there is provided a method of producing a water treatment agent, comprising mixing of a mixed solution obtained by mixing an alkali agent, a stabilizing agent, and a bromide salt, and of an oxidizing agent, and preparing the water treatment agent containing a chloramine compound and 1% or more of the bromide salt, wherein

the mixed solution is prepared by adding and mixing the stabilizing agent and the bromide salt into an aqueous solution adjusted to pH 13 or more with the alkali agent before adding a halogen-based oxidizing agent,

1.2 to 3 mol of the stabilizing agent is blended per mol of the oxidizing agent,

the stabilizing agent is a sulfamic acid compound,

the oxidizing agent is hypochlorous acid or a salt thereof, and

a pH of the water treatment agent is 13 or more.

That is, the present technology is as follows.

[1] A water treatment agent comprising the following components (a) to (c) and having a pH of 10 or more:

(a) a chloramine compound,

(b) a bromide salt, and

(c) 1 to 18% by mass of a carboxyl group polymer having a carboxyl group content rate of 0.8 g-COOH/g-polymer or less in the polymer.

[2] The water treatment agent according to above [1], wherein a molar ratio of the chloramine compound to the bromide salt is 1:0.1 to 1.0.

[3] The water treatment agent according to above [1] or [2], wherein the water treatment agent is at least any of one for slime control, one for anticorrosion, or one for scale prevention.

[4] The water treatment agent according to any of above [1] to [3], wherein the (a) chloramine compound and the (b) bromide salt of the

CLAIMS

[Claim 1]

A method of producing a water treatment agent, comprising mixing of a mixed solution obtained by mixing an alkali agent, a stabilizing agent, and a bromide salt, and of an oxidizing agent, and preparing the water treatment agent containing a chloramine compound and 1% or more of the bromide salt,

wherein

the mixed solution is prepared by adding and mixing the stabilizing agent and the bromide salt into an aqueous solution adjusted to pH 13 or more with the alkali agent before adding a halogen-based oxidizing agent,

1.2 to 3 mol of the stabilizing agent is blended per mol of the oxidizing agent,

the stabilizing agent is a sulfamic acid compound,

the oxidizing agent is hypochlorous acid or a salt thereof, and

a pH of the water treatment agent is 13 or more.

[Claim 2]

The method of producing a water treatment agent according to claim 1, wherein the mixed solution is obtained by adding and mixing a powdered bromide salt as the bromide salt.

[Claim 3]

The method of producing a water treatment agent according to any of claims 1 or 2, wherein a carboxyl group polymer is further mixed in such a way as to provide 1 to 18% by mass, and a carboxyl group content rate in the carboxyl group polymer is 0.8 g-COOH/g-polymer or less.