Claims

1. A method for handling aqueous solutions of methanesulfonic acid (MSA) having a concentration of from 50 to 99% by weight of MSA and a total chlorine content of less than 50 mg/kg in apparatuses in which the aqueous MSA solution is in contact with steel surfaces, wherein the steel comprises austenitic steels having a chromium content of from 15 to 22% by weight and a nickel content of from 9 to 15% by weight.

2. The method according to claim 1, wherein the steels furthermore comprise from 1 to 5% by weight of molybdenum.

3. The method according to claim 2, wherein the steels furthermore comprise from 0.1 to 2% by weight of titanium.

4. The method according to any of claims 1 to 3, wherein the temperature of the MSA in the course of the handling is less than 40°C.

5. The method according to any of claims 1 to 4, wherein the concentration of the MSA in the aqueous solution is from 60 to 80% by weight.

6. The method according to any of claims 1 to 5, wherein the apparatuses are apparatuses selected from the group consisting of tanks, storage containers, tanks of railway tank cars, tanks of tanker trucks, tank containers, reaction tanks, metering apparatuses, pipelines, flanges, pumps or instrumentation components.

The invention claimed is:

1. A method for handling aqueous solutions of methanesulfonic acid (MSA) having a concentration of from 50 to 99% by weight of MSA and a total chlorine content of less than 50 mg/kg in apparatuses in which the aqueous MSA solution is in contact with steel surfaces, wherein the steel comprises austenitic steels having a chromium content of from 15 to 22% by weight and a nickel content of from 9 to 15% by weight.

2. The method according to claim 1, wherein the steels furthermore comprise from 1 to 5% by weight of molybdenum.

3. The method according to claim 2, wherein the steels furthermore comprise from 0.1 to 2% by weight of titanium.

4. The method according to claim 1, wherein the temperature of the MSA in the course of the handling is less than 40° C.

5. The method according to claim 1, wherein the concentration of the MSA in the aqueous solution is from 60 to 80% by weight.

6. The method according to claim 1, wherein the apparatuses are apparatuses selected from the group consisting of tanks, storage containers, tanks of railway tank cars, tanks of tanker trucks, tank containers, reaction tanks, metering apparatuses, pipelines, flanges, pumps or instrumentation components.