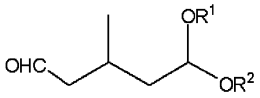
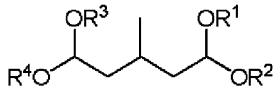
CLAIMS

1. A method for producing a metal corrosion inhibitor comprising, bringing one or more of a compound represented by the following formula (1) and a compound represented by the following formula (2) into contact with water to thereby generate 3-methylglutaraldehyde:



(1)

wherein R^1 and R^2 each independently represent an alkyl group having 1 to 6 carbon atoms, or are connected to each other to form an alkylene group having 2 to 7 carbon atoms; and



(2)

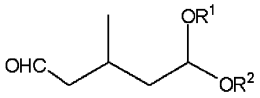
wherein R^1 and R^2 are as defined above, and R^3 and R^4 each independently represent an alkyl group having 1 to 6 carbon atoms, or are connected to each other to form an alkylene group having 2 to 7 carbon atoms.

2. The method for producing the metal corrosion inhibitor according to claim 1, wherein an acid is allowed to coexist.

3. A method for suppressing biological corrosion of a metal, which comprises using a biological corrosion inhibitor comprising 3-methylglutaraldehyde as an effective ingredient.

4. The method according to claim 3, wherein the biological corrosion is caused by at least one selected from sulfate-reducing bacteria, nitrate-reducing bacteria, methanogenic bacteria, iodide-oxidizing bacteria, iron-oxidizing bacteria, and sulfur-oxidizing bacteria.

5. The method according to claim 3 or 4, wherein the biological corrosion inhibitor further comprises one or more of a compound represented by the following formula (1) and a compound represented by the following formula (2):



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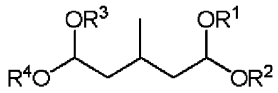

(2)

wherein R^1 and R^2 are as defined above, and R^3 and R^4 each independently represent an alkyl group having 1 to 6 carbon atoms, or are connected to each other to form an alkylene group having 2 to 7 carbon atoms.

6. The method according to any one of claims 3 to 5, wherein the biological corrosion inhibitor is in a form of aqueous liquid having a total concentration of the effective ingredients in the range of 0.01 ppm to 3000 ppm.

7. The method according to any one of claims 3 to 6, wherein the metal is iron.