periodontal or peri-implant pockets and in the mucosal wounds of the oral cavity, such as for example aphthae.

[0030] A further object is to provide compositions that can be applied in simple manner to chronic cutaneous ulcers, periodontal or peri-implant pockets and wounds of the mucosa of the oral cavity and enable the biofilm and the necrotic or infected tissues to be removed in rapid manner.

[0031] Summary

[0032] According to the disclosure, a composition as defined in claim 1 is provided, which is usable for removing a biofilm and necrotic or infected tissues from skin lesions and lesions of the oral cavity. In one aspect, the present disclosure provides a composition comprising methanesulfonic acid for use as a medicament. In another aspect, the present disclosure provides use of the composition as defined herein in the manufacture of a medicament for removing biofilm and necrotic or infected tissues from skin lesions, in particular chronic wounds or ulcers, and lesions of the oral cavity, in particular from periodontal pockets, peri-implant pockets or from wounds. In yet another aspect, the present disclosure provides use of the composition as defined herein in the manufacture of a medicament for the treatment of a pathology selected from the group consisting of chronic cutaneous ulcer, periodontal disease, perimplantitis and aphtha.

[0033] The composition according to the disclosure enables the previously mentioned objects to be achieved. In fact, the Inventors have discovered and verified experimentally that a chemical composition containing a strongly hydrophilic substance is able to perform a strongly dehydrating action on the bottom of a chronic cutaneous ulcer, on a periodontal or peri-implant pocket or on a generic mucosal lesion of the oral cavity, such as for example an aphtha. The aforesaid dehydrating action produces a plurality of effects, namely the denaturation of the inflammatory proteins, the drying and the detachment of necrotic biological tissues and above all the elimination of microorganisms, in particular bacteria and fungi.

[0034] The composition according to the disclosure comprises methanesulfonic acid as an active principle, in combination with suitable coformulants (chemically inert substances) that are able to adjust, in particular attenuate, the acidity of the composition. The composition according to the disclosure is able to remove the biofilm and necrotic tissues from infected zones of the skin or mucosa of the oral cavity within a few tens of seconds from the application. The composition can be applied directly on the zone to be treated (chronic

cutaneous ulcer, periodontal or peri-implant pocket, aphtha) with any means that is suitable for permitting the distribution thereof. After a contact time of a few tens of seconds has elapsed, the composition can be easily removed from the skin or from the mucosa through the use of a simple gauze or by washing the treated skin or mucosa surface with physiological solution or with a flow of sterile water (removable by suction in the case of treatment performed inside the oral cavity).

[0035] Therefore, by applying the composition according to the disclosure on a skin lesion or on a lesion of the mucosa of the oral cavity it is possible to obtain the same effects that are obtainable through a surgical debridement, without however the well-known drawbacks connected with the latter procedure. This new and effective therapeutic possibility is usable, with significant benefit for the patient, in cases of slight, medium and high seriousness.

[0036] Short description of the drawings

[0037] The invention can be better understood and implemented with reference to the enclosed drawings that illustrate an embodiment thereof by way of non-limiting example in which:

[0038] Figure 1 is a photograph of a Petri dish showing a microbial growth inhibition halo around the depositing zone of a sample of an embodiment of the composition according to the invention;

[0039] Figure 2 is a photograph of a Petri dish showing a microbial growth inhibition halo around the depositing zone of a sample of another embodiment of the composition according to the invention;

[0040] Figure 3 is a photograph of a Petri dish showing a microbial growth inhibition halo around the depositing zone of a sample of a further embodiment of the composition according to the invention;

[0041] Figure 4 is a photograph of a Petri dish showing a microbial growth inhibition halo around the depositing zone of a sample of another further embodiment of the composition according to the invention;

[0042] Figure 5 is a photograph of a Petri dish showing a microbial growth inhibition halo around the depositing zone of a sample of a further other embodiment of the composition according to the invention;

[0043] Figure 6 is a photograph of a Petri dish showing a microbial growth inhibition halo around the depositing zone of a sample of a still further embodiment of the composition according to the invention.

[0044] Detailed description of the invention

[0045] The composition according to the invention, comprising methanesulfonic acid, can be formulated as a solution, gel or cream and can be easily applied on chronic cutaneous ulcers or on lesions of the mucosa of the oral cavity, such as for example periodontal pockets, perimplantitises or aphthae. A surprisingly unexpected property of the composition according to the invention is that the latter is able to act on the biofilm and on the necrotic or infected tissues, causing a rapid desiccation thereof and enabling the

CLAIMS

1. Composition comprising methanesulfonic acid for use as a medicament.

2. Composition for the use according to claim 1, wherein said methanesulfonic acid is methanesulfonic acid 99.0%.

3. Composition for the use according to claim 1, or 2, further comprising a proton acceptor.

4. Composition for the use according to claim 3, wherein said proton acceptor is selected from the group consisting of: anhydrous sodium carbonate, 5-amino-2-mercaptobenzimidazole, ethylenediaminetetraacetic acid tetrasodium salt, sodium gluconate, sodium tartrate dihydrate, 2-mercapto-5-benzimidazole sodium sulfonate, dimethyl sulfoxide, polyethylene glycol 400, polyethylene glycol 600, silicon dioxide, tetraethoxysilane, and mixtures thereof.

5. Composition for the use according to any one of claims 1 to 4, prepared in a form selected from the group consisting of: solution, gel and cream.

6. Composition according to claim 4, or 5, having the following formulation:

Methanesulfonic acid	70-90% by weight
Sodium carbonate	0.5-2% by weight
5-amino-2-mercaptobenzimidazole	1-2% by weight
Ethylenediaminetetraacetic acid tetrasodium salt	1-6% by weight
Sodium gluconate	1-6% by weight
Sodium tartrate dihydrate	2-6% by weight
2-mercapto-5-benzimidazole sodium sulfonate	1-4% by weight

7. Composition for the use according to claim 4, or 5, having the following formulation:

Methanesulfonic acid	70-90% by weight
5-amino-2-mercaptobenzimidazole	1-2% by weight
Ethylenediaminetetraacetic acid tetrasodium salt	1-6% by weight
Sodium gluconate	1-6% by weight
Sodium tartrate dihydrate	2-6% by weight
2-mercapto-5-benzimidazole sodium sulfonate	1-4% by weight
Silicon dioxide	0.1-7% by weight

8. Composition for the use according to claim 4, or 5, having the following formulation:

Methanesulfonic acid	70-90% by weight
5-amino-2-mercaptobenzimidazole	1-2% by weight
Ethylenediaminetetraacetic acid tetrasodium salt	1-6% by weight

Sodium gluconate	1-6% by weight
Sodium tartrate dihydrate	2-6% by weight
2-mercapto-5-benzimidazole sodium sulfonate	1-4% by weight
Silicon dioxide	0.1-7% by weight
Tetraethoxysilane	0.1-2% by weight

9. Composition for the use according to claim 4, or 5, having the following formulation:

Methanesulfonic acid	70-90% by weight
Dimethyl sulfoxide	10-30% by weight
Silicon dioxide	0.1-7% by weight
Tetraethoxysilane	0.1-2% by weight

10. Composition for the use according to claim 4, or 5, having the following formulation:

Methanesulfonic acid	70-90% by weight
Sodium gluconate	1-6% by weight
Sodium tartrate dihydrate	2-6% by weight
Silicon dioxide	0.1-7% by weight
Tetraethoxysilane	0.1-2% by weight
Polyethylene glycol 400 or polyethylene glycol 600	1-10% by weight

11. Composition for the use according to claim 4, or 5, having the following formulation:

Methanesulfonic acid	70-90% by weight
5-amino-2-mercaptobenzimidazole	1-8% by weight
Ethylenediaminetetraacetic acid tetrasodium salt	1-8% by weight
2-mercapto-5-benzimidazole sodium sulfonate	1-8% by weight

12. Use of the composition as defined in any one of claims 1 to 11 in the manufacture of a medicament for removing biofilm and necrotic or infected tissues from skin lesions, in particular chronic wounds or ulcers, and lesions of the oral cavity, in particular from periodontal pockets, peri-implant pockets or from wounds.

13. Use of the composition as defined in any one of claims 1 to 11 in the manufacture of a medicament for the treatment of a pathology selected from the group consisting of chronic cutaneous ulcer, periodontal disease, perimplantitis and aphtha.