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 methanesulfonic acid and a proton acceptor for use as a medicament. In another aspect, the present disclosure provides a use of methanesulfonic acid and a proton acceptor in the manufacture of a medicament for combination therapy 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 another aspect, the present disclosure provides a use of methanesulfonic acid and a proton acceptor in the manufacture of a medicament for combination therapy for treating a pathology selected from the group consisting of chronic cutaneous ulcer, periodontal disease, perimplantitis and aphtha. In another aspect, the present disclosure provides a use of methanesulfonic acid in the manufacture of a first medicament and use of a proton acceptor in the manufacture of a second medicament, wherein the first and second medicaments are to be used in combination therapy 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 another aspect, the present disclosure provides a use of methanesulfonic acid in the manufacture of a first medicament and use of a proton acceptor in the manufacture of a second medicament, wherein the first and second medicaments are to be used in combination therapy for treating a pathology selected from the group consisting of chronic cutaneous ulcer, periodontal disease, perimplantitis and aphtha. In another aspect, the present disclosure provides a use of methanesulfonic acid in the manufacture of a medicament for use in combinatorial therapy 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, wherein said medicament is to be administered in combination with a proton acceptor. In another aspect, the present disclosure provides a use of methanesulfonic acid in the manufacture of a medicament for use in combinatorial therapy for treating a pathology selected from the group consisting of chronic cutaneous ulcer, periodontal disease, perimplantitis and aphtha, wherein said medicament is to be administered in combination with a proton acceptor.

[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

CLAIMS

1. Methanesulfonic acid and a proton acceptor for use as a medicament.

2. Use of methanesulfonic acid and a proton acceptor in the manufacture of a medicament for combination therapy 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.

3. Use of methanesulfonic acid and a proton acceptor in the manufacture of a medicament for combination therapy for treating a pathology selected from the group consisting of chronic cutaneous ulcer, periodontal disease, perimplantitis and aphtha.

4. Use of methanesulfonic acid in the manufacture of a first medicament and use of a proton acceptor in the manufacture of a second medicament, wherein the first and second medicaments are to be used in combination therapy 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.

5. Use of methanesulfonic acid in the manufacture of a first medicament and use of a proton acceptor in the manufacture of a second medicament, wherein the first and second medicaments are to be used in combination therapy for treating a pathology selected from the group consisting of chronic cutaneous ulcer, periodontal disease, perimplantitis and aphtha.

6. Use of methanesulfonic acid in the manufacture of a medicament for use in combinatorial therapy 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, wherein said medicament is to be administered in combination with a proton acceptor.

7. Use of methanesulfonic acid in the manufacture of a medicament for use in combinatorial therapy for treating a pathology selected from the group consisting of chronic cutaneous ulcer, periodontal disease, perimplantitis and aphtha, wherein said medicament is to be administered in combination with a proton acceptor.

8. The composition for use according to claim 1, or the use according to any one of claims 2 to 7, wherein said methanesulfonic acid is methanesulfonic acid 99.0%.

9. The composition for use according to claim 1, or claim 8, or the use according to any one of claims 2 to 7, 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.

10. The composition for use according to claim 1, or claims 8 to 9, or the use according to any one of claims 2 to 7, prepared in a form selected from the group consisting of: solution, gel and cream.

11. The composition for use according to claim 9, or 10, 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.

12. The composition for use according to claim 9, or 10, 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.

13. The composition for use according to claim 9, or 10, 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.

14. The composition for use according to claim 9, or 10, 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.

15. The composition for use according to claim 9, or 10, 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.

16. The composition for use according to claim 9, or 10, 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.