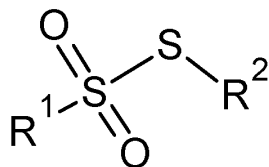


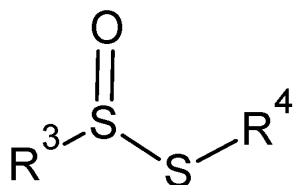
Claims

1. A compound according to formula I



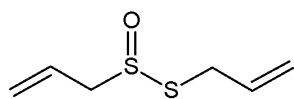
Formula I

- wherein R1 and R2 are independently selected from optionally substituted linear or branched alkyl, optionally substituted linear or branched alkenyl, optionally substituted linear or branched alkynyl, optionally substituted aryl, optionally substituted cycloalkyl, optionally substituted heterocycloalkyl, or a composition comprising the compound according to formula I, wherein the composition is substantially free of diallyl thiosulfinate,
- for use in the treatment of a biofilm-related disorder.
2. The compound or composition for use according to claim 1, wherein the compound is propyl-propane thiosulfonate (PTSO).
3. The compound or composition for use according to claim 1, further comprising a compound for use according to formula II



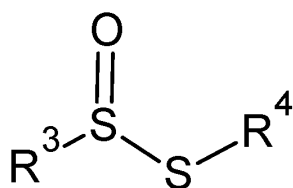
Formula II

- wherein R3 and R4 are independently selected from optionally substituted linear or branched alkyl, optionally substituted linear or branched alkenyl, optionally substituted linear or branched alkynyl, optionally substituted aryl, optionally substituted cycloalkyl, optionally substituted heterocycloalkyl, provided that Formula II is not



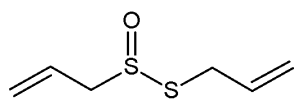
- , preferably wherein the compound according to formula II is propyl-propane-thiosulfinate (PTS).

4. A compound according to according to formula II



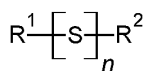
Formula II

- wherein R3 and R4 are independently selected from optionally substituted linear or branched alkyl, optionally substituted linear or branched alkenyl, optionally substituted linear or branched alkynyl, optionally substituted aryl, optionally substituted cycloalkyl, optionally substituted heterocycloalkyl, provided that Formula II is not



- , preferably wherein the compound is propyl-propane-thiosulfinate (PTS), or a composition comprising the compound according to formula II, wherein the composition is substantially free of diallyl thiosulfinate, for use in the treatment of a biofilm-related disorder.

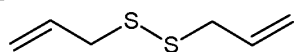
5. The compound or composition for use according to any one of the preceding claims, further comprising a compound having Formula III



15

Formula III,

- wherein n is 1, 2, or 3 and R1 and R2 are independently selected from optionally substituted linear or branched alkyl, optionally substituted linear or branched alkenyl, optionally substituted linear or branched alkynyl, optionally substituted aryl, optionally substituted cycloalkyl, optionally substituted heterocycloalkyl, provided that Formula III is not



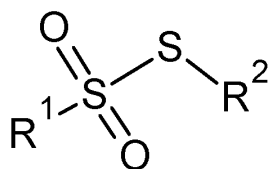
6. The compound or composition for use according to any one of the preceding claims, wherein the use further comprises the administration of an antimicrobial agent, preferable selected from an antifungal or an antibiotic.

7. The compound or composition for use according to any one of the preceding claims, wherein the use further comprises the administration of an anti-inflammatory agent.

30

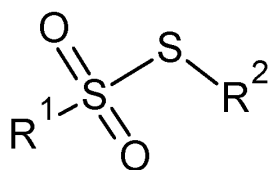
8. The compound or composition for use according to any one of the preceding claims, wherein the treatment is for the reduction of biofilm formation or growth and/or for the degradation or reduction of biofilms.

9. The compound or composition for use according to any one of the preceding claims, wherein the biofilm-related disorder is a chronic and/or persistent infection.
10. The compound or composition for use according to any one of the preceding claims, wherein the biofilm-related disorder is digital dermatitis or a chronic wound infection.
11. The compound or composition for use according to any one of the preceding claims, wherein the biofilm-related disorder is an infection of the mammary gland, preferably wherein the biofilm-related disorder is mastitis.
12. The compound or composition for use according to any one of the preceding claims, wherein the treatment is for a mammal.
13. The compound or composition for use according to any one of the preceding claims, wherein the treatment is for a ruminant, preferably a cow.
14. The compound or composition for use according to any one of the preceding claims, wherein the composition is substantially free of diallyl thiosulfinate.
15. The compound or composition for use according to any one of the preceding claims, wherein the biofilm comprises bacteria, yeast, fungi, microalgae, or a combination thereof.
16. A method for treating a biofilm-related disorder in an individual, said method comprising administering to an individual in need thereof a composition comprising a compound according to formula I



Formula I

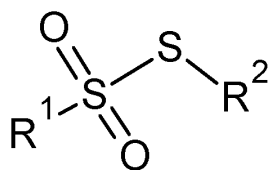
- wherein R<sup>1</sup> and R<sup>2</sup> are independently selected from optionally substituted linear or branched alkyl, optionally substituted linear or branched alkenyl, optionally substituted linear or branched alkynyl, optionally substituted aryl, optionally substituted cycloalkyl, optionally substituted heterocycloalkyl, preferably wherein the compound is propyl-propane thiosulfonate (PTSO), wherein the composition is substantially free of diallyl thiosulfinate.
17. An article having a surface at least partially coated with a composition comprising a compound according to formula I



Formula I

- 5 wherein R1 and R2 are independently selected from optionally substituted linear or branched alkyl, optionally substituted linear or branched alkenyl, optionally substituted linear or branched alkynyl, optionally substituted aryl, optionally substituted cycloalkyl, optionally substituted heterocycloalkyl, wherein the composition is substantially free of diallyl thiosulfinate, preferably, wherein the article is a cleaning product, medical device, or surgical device.

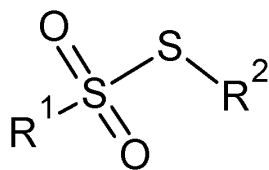
- 10 18. An in vitro method for preventing or reducing biofilm formation or growth on a surface or for degrading or reducing biofilms on a surface, said method comprising applying a composition to the surface such as to prevent or reduce biofilm formation or growth on a surface, or such as to degrade or reduce biofilms on a surface, wherein said composition comprises a compound according to formula I



Formula I

- 15 wherein R1 and R2 are independently selected from optionally substituted linear or branched alkyl, optionally substituted linear or branched alkenyl, optionally substituted linear or branched alkynyl, optionally substituted aryl, optionally substituted cycloalkyl, optionally substituted heterocycloalkyl, wherein the composition is substantially free of diallyl thiosulfinate.
- 20

19. A composition comprising a compound according to formula I



Formula I

- 25 wherein R1 and R2 are independently selected from optionally substituted linear or branched alkyl, optionally substituted linear or branched alkenyl, optionally substituted linear or branched alkynyl, optionally substituted aryl, optionally substituted cycloalkyl, optionally substituted heterocycloalkyl, wherein the

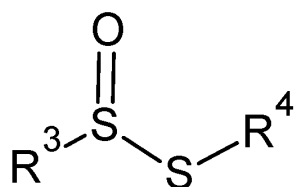
composition is substantially free of diallyl thiosulfinate, and wherein the composition is a pharmaceutical composition or a functional food.

20. The article, method, or composition according to any one of claims 16-19, wherein  
5 the compound is PTSO.

21. The article, method, or composition according to any one of claims 16-20, wherein  
10 the composition further comprises an antimicrobial agent, preferable selected from an antifungal or an antibiotic.

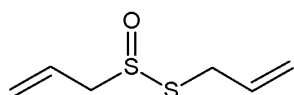
22. The article, method, or composition according to any one of claims 16-21, wherein  
the composition further comprises anti-inflammatory agent.

23. The article, method, or composition according to any one of claims 16-22, wherein  
15 the composition further comprises a compound according to formula II



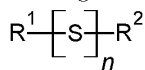
Formula II

wherein R3 and R4 are independently selected from optionally substituted linear or  
branched alkyl, optionally substituted linear or branched alkenyl, optionally  
substituted linear or branched alkynyl, optionally substituted aryl, optionally  
20 substituted cycloalkyl, optionally substituted heterocycloalkyl, provided that Formula  
II is not



and/or the composition further comprises a compound

having Formula III



25 Formula III,  
wherein n is 1, 2, or 3 and R1 and R2 are independently selected from optionally  
substituted linear or branched alkyl, optionally substituted linear or branched  
alkenyl, optionally substituted linear or branched alkynyl, optionally substituted aryl,  
optionally substituted cycloalkyl, optionally substituted heterocycloalkyl,  
30 provided that Formula III is not

