CLAIMS

1. Use of zinc molybdate ($ZnMoO_4$) as an antimicrobial agent, wherein $ZnMnO_4$ is in the form of particles having a triclinic crystal structure and an average grain size in the range from ~~between~~ 0.1 µm ~~and 5~~to less than 1.0 µm.

2. Use according to claim 1, wherein the average grain size of $ZnMoO_4$ is in the range from 0.15 µm to less than 1.0 µm, preferably in the range from 0.20 µm to less than 1.0 µm.

3. Use according to either claim 1 or claim 2, wherein $ZnMoO_4$ is used in combination with MoO_3, preferably orthorhombic MoO_3.

4. Antimicrobially active composite material, comprising $ZnMoO_4$ in the form of particles having a triclinic crystal structure and an average grain size in the range from ~~between~~ 0.1 µm ~~and 5~~to less than 1.0 µm, and at least one further material.

5. Antimicrobially active composite material according to claim 4, further comprising MoO_3 having a preferably orthorhombic crystal structure, which is present in a mixture or as a mixed crystal with the triclinic $ZnMoO_4$.

6. Antimicrobially active composite material according to either claim 4 or claim 5, further comprising at least one hydrophilicising and/or hygroscopic agent which is arranged at least in the region of the surface of the composite material.

7. Composite material according to claim 6,
characterised in that

the $ZnMoO_4$ is at least partially coated and/or agglomerated with the hydrophilicising and/or hygroscopic agent.

8. Composite material according to either claim 6 or claim 7, the hydrophilicising and/or hygroscopic agent comprising SiO_2, in particular silica gel or pyrogenic silicon dioxide.

9. Composite material according to any of claims 4 to 8,
characterised in that
the mass content of $ZnMoO_4$ based on the total mass of the composite material is 0.1% to 80%, in particular 1.5% to 30% and preferably 1.8% to 5.0%.

10. Composite material according to any of claims ~~3~~ 4 - 9,
characterised in that
the further material comprises at least one organic polymer and/or silicone.

11. Composite material according to any of claims ~~3~~ 4 - 10,
characterised in that
it is designed as a layer composite, fibre composite, particle composite, or penetration composite.

12. Use of an antimicrobially active composite material according to any of claims ~~3~~ 4 - 11 for the production of an antimicrobially active product.

13. Method for producing an antimicrobially active composite material according to any of claims ~~3~~ 4 - 11,
characterised in that
$ZnMoO_4$ ~~in the form of particles having an average grain size between 0.20 µm and 5.0 µm, preferably 0.25 µm and 5.0 µm,~~ is bonded to at least one further material.

14. Method according to claim 13,
characterised in that
the $ZnMoO_4$ is produced by ultrasound-assisted reaction of one or more water-soluble molybdates with one or more zinc (II) salts in aqueous solution.

15. Method according to claim ~~16~~13,
characterised in that
an aqueous solution of sodium molybdate dihydrate is reacted at room temperature with an aqueous solution of zinc chloride by the action of ultrasound at a frequency of more than 15 kHz, in particular 20 - 30 kHz.

16. Method according to any of claims 13 - 15,
characterised in that
at least one hydrophilicising and/or hygroscopic agent is arranged at least in the region of the surface of the composite material.

17. Method according to claim 16,
characterised in that
$ZnMoO_4$ is at least partially coated and/or agglomerated with the hydrophilicising and/or hygroscopic agent.