## Claims

1. A surface-treated magnesium ion-containing material obtained by treating the surface of a magnesium ion-containing material with one ~~or more~~ compound~~(s)~~ selected from the group consisting of ~~phosphoric acid, a~~ polyphosphate, a carboxylic acid containing up to six carbon atoms, a di-, and tri-carboxylic acid containing up to six carbon atoms where the carboxylic acid groups are linked by a chain of 0-4 intermittent carbon atoms, a water-insoluble polymer, a water-insoluble wax, a silicate- and/or aluminate-group containing compound, and a corresponding salt thereof,

wherein the magnesium ion-containing material is selected from anhydrous magnesium carbonate or magnesite ($MgCO_3$), dolomite ($CaMg(CO_3)_2$), and mixtures thereof, and

wherein the magnesium ion-containing material is in form of particles having a BET specific surface area in the range from 2 to 200 $m^2/g$, measured using nitrogen and the BET method according to ISO 9277:2010.

~~2. The surface-treated magnesium ion-containing material according to claim 1, wherein the magnesium ion-containing material is selected from the group consisting of anhydrous magnesium carbonate or magnesite ($MgCO_3$), hydromagnesite ($Mg_5(CO_3)_4(OH)_2 \cdot 4H_2O$), artinite ($Mg_2(CO_3)(OH)_2 \cdot 3H_2O$), dypingite ($Mg_5(CO_3)_4(OH)_2 \cdot 5H_2O$), giorgiosite ($Mg_5(CO_3)_4(OH)_2 \cdot 5H_2O$), pokrovskite ($Mg_2(CO_3)(OH)_2 \cdot 0.5H_2O$), barringtonite ($MgCO_3 \cdot 2H_2O$), lansfordite ($MgCO_3 \cdot 5H_2O$), nesquehonite ($MgCO_3 \cdot 3H_2O$), brucite ($Mg(OH)_2$), dolomite ($CaMg(CO_3)_2$), dolocarbonate and mixtures thereof, preferably selected from anhydrous magnesium carbonate or magnesite ($MgCO_3$), dolomite ($CaMg(CO_3)_2$), hydromagnesite ($Mg_5(CO_3)_4(OH)_2 \cdot 4H_2O$), brucite ($Mg(OH)_2$) and mixtures thereof.~~

~~3~~2. The surface-treated magnesium ion-containing material according to claim 1 ~~or 2~~, wherein the magnesium ion-containing material is in form of particles having

a) a volume median grain diameter ($d_{50}$) of ≥ 150 nm, preferably from 150 nm to 40 µm, more preferably from 0.2 to 35 µm, even more preferably

from 0.3 to 30 µm, and most preferably from 0.4 to 27 µm, as determined by laser diffraction, and/or

b) a volume determined top cut particle size ($d_{98}$) of equal to or less than 100 µm, preferably from 1 to 90 µm, more preferably from 1.5 to 85, and most preferably from 1.5 to 80 µm, as determined by laser diffraction.

~~4~~3. The surface-treated magnesium ion-containing material according to ~~any one of the preceding claims~~claim 1 or 2, wherein the magnesium ion-containing material is in form of particles having a BET specific surface area in the range from ~~2 to 200 $m^2/g$, preferably from~~ 2 to 100 $m^2/g$, and most preferably from 3 to 75 $m^2/g$, measured using nitrogen and the BET method according to ISO 9277:2010.

~~5~~4. The surface-treated magnesium ion-containing material according to any one of the preceding claims, wherein the magnesium ion-containing material contains up to 25 000 ppm $Ca^{2+}$ ions.

~~6~~5. The surface-treated magnesium ion-containing material according to any one of the preceding claims, wherein the surface-treated magnesium ion-containing material is obtained by treating the surface of the magnesium ion-containing material with the one or more compound(s) in an amount from 0.1 to 25 wt.-%, based on the total dry weight of the magnesium ion-containing material.

~~7~~6. The surface-treated magnesium ion-containing material according to any one of the preceding claims, wherein the silicate- and/or aluminate-group containing compound is selected from the group comprising alkali metal silicates, alkali metal aluminates, silicon alkoxides and aluminium alkoxides, preferably from sodium silicate, potassium silicate, sodium aluminate, potassium aluminate, tetramethyl orthosilicate, tetraethyl orthosilicate, aluminium methoxide, aluminium ethoxide, aluminium isopropoxide, and mixtures thereof, and more preferably from sodium silicate, tetraethyl orthosilicate, and aluminium isopropoxide.

~~8~~7. An oral care composition comprising a surface-treated magnesium ion-containing material obtained by treating the surface of a magnesium ion-containing material with one ~~or more~~ compound~~(s)~~ selected from the group

consisting of ~~phosphoric acid,~~ a polyphosphate, a carboxylic acid containing up to six carbon atoms, a di-, and tri-carboxylic acid containing up to six carbon atoms where the carboxylic acid groups are linked by a chain of 0-4 intermittent carbon atoms, a water-insoluble polymer, a water-insoluble wax, a silicate- and/or aluminate-group containing compound, and a corresponding salt thereof and/or a surface-treated calcium ion-containing material obtained by treating the surface of a calcium ion-containing material with one ~~or more~~ compound~~(s)~~ selected from the group consisting of a polyphosphate, a carboxylic acid containing up to six carbon atoms, a di-, and tri-carboxylic acid containing up to six carbon atoms where the carboxylic acid groups are linked by a chain of 0-4 intermittent carbon atoms a water-insoluble polymer, a water-insoluble wax, a silicate- and/or aluminate-group containing compound, and a corresponding salt thereof.

~~9~~8. The oral care composition according to claim ~~8~~7, wherein the oral care composition further comprises a fluoride compound, preferably the fluoride compound is selected from the group consisting of sodium fluoride, stannous fluoride, sodium monofluorophosphate, potassium fluoride, potassium stannous fluoride, sodium fluorostannate, stannous chlorofluoride, amine fluoride, and mixtures thereof, and more preferably the fluoride compound is sodium monofluorophosphate and/or sodium fluoride.

~~10~~9. The oral care composition according to claims ~~8~~ 7 or ~~9~~8, wherein the oral care composition further comprises a remineralisation and/or whitening agent, preferably selected from the group consisting of silica, hydroxylapatite, e.g. nano-hydroxylapatite, calcium carbonate, e.g. amorphous calcium carbonate, ground calcium carbonate, precipitated calcium carbonate, surface-reacted calcium carbonate and combinations thereof, calcium silicate and mixtures thereof.

~~11~~10. The oral care composition according to any one of claims ~~8~~ 7 to ~~10~~9, wherein the oral care composition is a toothpaste, a toothgel, a toothpowder, a varnish, an adhesive gel, a cement, a resin, a spray, a foam, a balm, a composition carried out on a mouthstrip or a buccal adhesive patch, a chewable tablet, a chewable pastille, a chewable gum, a lozenge, a beverage,

or a mouthwash, preferably a chewable gum, a lozenge, a toothpaste, a toothpowder, or a mouthwash, and most preferably a toothpaste.

~~12~~11. The oral care composition according to any one of claims ~~8~~ 7 to ~~11~~10, wherein the oral care composition has a pH between 6.8 and 10, preferably between 7.5 and 9 and most preferably between 8 and 9.

~~13~~12. The oral care composition according to any one of claims ~~8~~ 7 to ~~12~~11, wherein the oral care composition comprises the surface-treated magnesium ion-containing material and/or the surface-treated calcium ion-containing material in an amount from 0.1 to 40 wt.-%, preferably from 0.5 to 10 wt.-%, based on the total weight of the composition.

~~14~~13. Use of a surface-treated magnesium ion-containing material and/or a surface-treated calcium ion-containing material as opacifying agent and/or whitening pigment in oral care compositions, wherein the surface-treated magnesium ion-containing material is obtained by treating the surface of a magnesium ion-containing material with one ~~or more~~ compound~~(s)~~ selected from the group consisting of ~~phosphoric acid,~~ a polyphosphate, a carboxylic acid containing up to six carbon atoms, a di-, and tri-carboxylic acid containing up to six carbon atoms where the carboxylic acid groups are linked by a chain of 0-4 intermittent carbon atoms, a water-insoluble polymer, a water-insoluble wax, a silicate- and/or aluminate-group containing compound, and a corresponding salt thereof and/or the surface-treated calcium ion-containing material is obtained by treating the surface of a calcium ion-containing material with one ~~or more~~ compound~~(s)~~ selected from the group consisting of a polyphosphate, a carboxylic acid containing up to six carbon atoms, a di-, and tri-carboxylic acid containing up to six carbon atoms where the carboxylic acid groups are linked by a chain of 0-4 intermittent carbon atoms, a water-insoluble polymer, a water-insoluble wax, a silicate- and/or aluminate-group containing compound, and a corresponding salt thereof.

~~15~~14. Use of a surface-treated magnesium ion-containing material and/or a surface-treated calcium ion-containing material for improving the availability of fluoride ions in oral care compositions, wherein the surface-treated magnesium ion-containing material is obtained by treating the surface of

a magnesium ion-containing material with one ~~or more~~ compound~~(s)~~ selected from the group consisting of ~~phosphoric acid,~~ a polyphosphate, a carboxylic acid containing up to six carbon atoms, a di-, and tri-carboxylic acid containing up to six carbon atoms where the carboxylic acid groups are linked by a chain of 0-4 intermittent carbon atoms, a water-insoluble polymer, a water-insoluble wax, a silicate- and/or aluminate-group containing compound, and a corresponding salt thereof and/or the surface-treated calcium ion-containing material is obtained by treating the surface of a calcium ion-containing material with one ~~or more~~ compound~~(s)~~ selected from the group consisting of a polyphosphate, a carboxylic acid containing up to six carbon atoms, a di-, and tri-carboxylic acid containing up to six carbon atoms where the carboxylic acid groups are linked by a chain of 0-4 intermittent carbon atoms, a water-insoluble polymer, a water-insoluble wax, a silicate- and/or aluminate-group containing compound, and a corresponding salt thereof.