

1. A mineral-based composite comprising gypsum, syngenite, brucite and a hydrated magnesium sulphate mineral, wherein the mineral-based composite is adapted to degrade when buried.
2. The mineral-based composite of claim 1, wherein the mineral-based composite has a shape that defines a product.
3. The mineral-based composite of claim 2, wherein the product is a plantable container for plants.
4. The mineral-based composite of any one of claims 1 to 3, wherein the hydrated magnesium sulphate mineral is starkeyite and/or epsomite.
5. The mineral-based composite of any one of claims 1 to 4, wherein the mineral-based composite further comprises discrete fertiliser pellets distributed therethrough.
6. The mineral-based composite of claim 5, wherein the fertilizer pellets comprise monoammonium phosphate and arcanite.
7. The mineral-based composite of any one of claims 1 to 6, wherein the mineral-based composite is porous.
8. The mineral-based composite of any one of claims 1 to 7, further comprising one or more inorganic fillers.
9. The mineral-based composite of any one of claims 1 to 8, further comprising one or more organic fibres.
10. The mineral-based composite of any one of claims 1 to 9, further comprising a pesticide.
11. The mineral-based composite of any one of claims 1 to 10, further comprising a colourant.
12. The mineral-based composite of any one of claims 1 to 11, further comprising a coating agent.
13. A plantable container for plants that comprises a mineral-based composite comprising gypsum, syngenite, brucite and a hydrated magnesium sulphate mineral, wherein the container is adapted to degrade when buried.

14. A plantable container for plants that is formed from a mineral-based composite comprising gypsum, syngenite, brucite and a hydrated magnesium sulphate mineral, wherein the container is adapted to degrade when buried.
15. A method for producing a product that is formed from a mineral-based composite and which degrades when buried, the method comprising:
  - hydrating and stirring a precursor mineral mixture that comprises finely ground bassanite, magnesia and arcanite, whereby a self-binding and shapeable mineral aggregate forms;
  - shaping the mineral aggregate into a shape of the product; and
  - allowing the mineral aggregate to set, whereby the product is produced.
16. The method of claim 15 further comprising adding a seeding agent during stirring of the mineral aggregate, whereby the setting time of the mineral aggregate is affected.
17. The method of claim 16, wherein the seeding agent is finely ground bassanite or arcanite.
18. The method of claim 15, wherein a retarding agent effective to slow the setting of the mineral aggregate is added during stirring.
19. The method of claim 18, wherein the retarding agent is a weak acid.
20. The method of claim 18 or claim 19, wherein the retarding agent is selected from one or more of the group consisting of: acetic acid, citric acid, tartaric acid, ascorbic acid, boric acid and sodium gluconate.
21. The method of any one of claims 15 to 20, wherein air is blown into the mineral aggregate during stirring, whereby a porosity of the produced product is increased.
22. The method of any one of claims 15 to 21, wherein the mineral aggregate is shaped into the shape of the product by pouring into a mould.
23. The method of any one of claims 15 to 22, wherein the mineral aggregate is shaped into the shape of a container for plants.
24. The method of any one of claims 15 to 23, wherein the mineral aggregate is set by allowing it to dry at room temperature.
25. The method of claim 15, wherein setting of the mineral aggregate is accelerated by one or more of the following:
  - a. adding more finely ground precursor mineral mixture to the mineral aggregate;

- b. increasing the relative proportion of arcanite to bassanite in the precursor mineral mixture; and
  - c. adding a seeding agent.
26. The method of any one of claims 15 to 25, wherein the precursor mineral mixture comprises between about 30%w/w and about 97.5%w/w of bassanite (by weight of dry mixture).
27. The method of any one of claims 15 to 26, wherein the precursor mineral mixture comprises between about 2%w/w and about 50%w/w of magnesia (by weight of dry mixture).
28. The method of any one of claims 15 to 27, wherein the precursor mineral mixture comprises between about 0.5%w/w and about 20%w/w of arcanite (by weight of dry mixture).
29. The method of any one of claims 15 to 28, wherein the finely ground bassanite, magnesia and arcanite each independently have a particle size of between about 0.01mm and about 2mm.
30. The method of any one of claims 15 to 29, wherein the amount of water used to hydrate the precursor mineral mixture is between about 10%w/w and about 60%w/w relative to the weight of the mixture.
31. The method of any one of claims 15 to 30, wherein the hydrated precursor mineral mixture is stirred using a high shear solid-liquid mixer.
32. A mineral-based composite produced by the method of any one of claims 15 to 31.
33. A plantable container produced by the method of any one of claims 15 to 31.
34. A self-binding mineral-based composite produced by hydrating and stirring a mineral mixture comprising finely ground bassanite, magnesia and arcanite, the minerals in the stirred mixture reacting to diagenetically produce the mineral-based composite.
35. A mixture of finely ground bassanite, magnesia and arcanite, which minerals, when mixed with water and stirred, react to form a mineral aggregate that is self-binding, shapeable and which hardens into a mineral-based composite upon setting.