is simply mentioned in a list of suitable water-insoluble hydrophobic natural pigment. None of the working examples of WO97/26802 use vegetable carbon black as a pigment.

EP2011835 is directed to a water-dispersible composition comprising at least one water-insoluble pigment and at least one starch octenyl succinate derivative as a hydrocolloid. EP2011835 has no mention of use of carbo vegetabilis as a pigment.

It is the object of the present disclosure~~invention~~, to provide a colouring substance containing carbo vegetabilis which circumvents the above illustrated disadvantages of the state in the art.

In a first aspect, there is provided~~This object is solved by~~ a water-dispersible colouring substance comprising carbo vegetabilis and at least 1 wt% of at least one starch octenyl succinate derivative as a dispersion agent.

In a second aspect, t~~T~~he present disclosure provides~~invention further relates to~~ a method ~~for~~of preparing ~~the~~a water-dispersible colouring substance as described above, said method comprising dispersing carbo vegetabilis in an aqueous medium comprising at least one starch octenyl succinate derivative.

In a third aspect, the present disclosure provides a water-dispersible colouring substance obtainable by preparing a dispersion of carbo vegetabilis in an aqueous medium comprising at least one starch octenyl succinate.

In a fourth aspect~~Moreover~~, the present disclosure provides~~invention relates to~~ the use of ~~the above described~~ a water-dispersible colouring substance as described above for colouring of an edible or pharmaceutical product.

In a fifth aspect, a~~A~~n edible ~~or pharmaceutical~~ product comprising the above water-dispersible colouring substance is also provided by the present disclosure~~invention~~.

In a sixth aspect, the present disclosure provides a pharmaceutical product comprising a water-dispersible colouring substance as defined above.

The water-dispersible colouring substance provided by the present disclosure~~invention~~ is highly effective in the colouring of edible and pharmaceutical products. Also, the colouring substance of the present disclosure~~invention~~ can be further processed using any know prior art technology including comminuting to obtain a colouring composition having a reduced particle size. Useful techniques include wet milling as described in e.g. WO91/06292. The excellent colouring properties of the colouring substance as provided can thus be further improved according to any particular need.

The quality of the resulting colouring composition of any further improvement process will always depend on the quality of the colouring "starting material". Accordingly, the colouring substance provided by the present disclosure~~invention~~ is superior in such further processes as compared to state of the art products due to the above mentioned improved properties. Particularly, the colouring strength (total content of pigment) is a very important quality parameter of any colouring substance.

Current products contain around 10 wt% of carbo in dispersion whereas the colouring substance prepared according to the present disclosure~~invention~~ may contain above 10 wt% carbo, such as above 15 wt%, such as above 20 wt%, such as above 25 wt%, such as above 30 wt%, and such as above 40 wt%. Thus the present disclosure~~invention~~ may contain about 15 wt%, such as 20 wt%, such as 25 wt% or even higher contents such as about 30 wt%, 40 wt% or 50 wt% carbo. As appreciated by the person of skill in the art there is a very strong interrelationship between particle size, surface area and resulting viscosity of a given dispersion. Thus, a high content of carbo vegetabilis in the colouring substance is more readily achieved with larger particle sizes without compromising the viscosity.

A colouring substance having a lower content of carbo is also encompassed by the present disclosure~~invention~~. Such lower content may be in the range of 0.5 wt% to 10 wt%, including a content of about, 2 wt%, 4 wt%, 6 wt% and 8 wt% and including a range such as of 0.5 wt% to 8 wt%, such as of 0.5 wt% to 6 wt%, such as of 0.5 wt% to 4 wt%, such as of 0.5 wt% to 2 wt%.

In the present context the term "carbo vegetabilis" and "carbo" are used interchangeably to denote the black pigment powder which can be produced by e.g. slow pyrolysis, the heating of wood, sugar, bone char, or other substances in the absence of oxygen. The resulting soft, brittle, lightweight, black, porous material is also referred to as "charcoal" and can be further processed to activated carbon, also called activated charcoal or activated coal. As mentioned, the material is extremely porous and thus has a very large surface area. One gram of charcoal has a surface area in excess of 500 m^2. In addition, charcoal is very hydrophobic. These properties make the pigment powder exceptionally difficult to disperse.

CLAIMS

1. A water-dispersible colouring substance comprising carbo vegetabilis and at least 1 wt% of at least one starch octenyl succinate derivative as a dispersion agent.

2. The colouring substance of claim 1, wherein the average particle diameter of the carbo vegetabilis particles is less than 10 µm.

3. The colouring substance of claim 2, wherein the average particle diameter of the carbo vegetabilis particles is less than 6 µm.

4. The colouring substance of claim 2, wherein the average particle diameter of the carbo vegetabilis particles is less than 1 µm.

5. The colouring substance according to any of claims 1 to 4, wherein the at least one dispersion agent is present in an amount of at least 10 wt% based on the total composition.

6. The colouring substance according to any of claims 1 to 5, wherein the carbo vegetabilis:octenyl succinate derivative ratio is from about 5:1 to about 1:5.

7. The colouring substance according to any of claims 1 to 6 having a water content of more than 5 wt% based on the total composition.

8. The colouring substance according to any of claims 1 to 7 having a water content of less than 5 wt% based on the total composition.

9. A method for preparing the water-dispersible colouring substance according to any of claims 1 to 8, said method comprising dispersing carbo vegetabilis in an aqueous~~aquous~~ medium comprising at least one starch octenyl succinate.

10. The method according to claim 9 comprising the steps of a) dissolving the at least one starch octenyl succinate in water and b) dispersing the carbo vegetabilis in the starch octenyl succinate solution.

11. The method according to any of claims 9 and 10, further comprising the step of comminuting the dispersion to obtain a water-dispersible colouring substance with a reduced particle size.

12. A water-dispersible colouring substance obtainable by preparing a dispersion of carbo vegetabilis in an aqueous~~aqueous~~ medium comprising at least one starch octenyl succinate.

13. Use of a water–dispersible colouring substance according to any of claims 1 to 8 for colouring of an edible or pharmaceutical product.

14. An edible product comprising a water-dispersible colouring substance according to any of claims 1 to 8.

15. A pharmaceutical product comprising a water-dispersible colouring substance according to any of claims 1 to 8.