CLAIMS

1. Specific fluid suitable for converting light radiation to heat, the specific fluid comprising water and a filler able to be in suspension in the specific fluid, wherein the filler comprises powder of calcium carbonate which strongly scatters solar radiation, the strongly scattering powder of calcium carbonate having a concentration by mass of between 1% and 3% and a median particle size of between 0.8 µm and 10 µm, the particles of the strongly scattering powder having, on average, a light energy scattering coefficient of greater than 0.7, the fluid not being a polyelectrolyte polymer solution for microcapsule preparation.

2. Specific fluid according to claim 1, wherein the strongly scattering powder of calcium carbonate has a median particle size of between 1 µm and 3 µm.

3. Specific fluid according to claim 1 or 2, wherein the strongly scattering powder of calcium carbonate is essentially constituted of spheroidal particles.

4. Specific fluid according to any one of the preceding claims, wherein the strongly scattering powder of calcium carbonate has a CIE whiteness, measured according to DIN 6174, such that the parameter L* is equal to a value between 94 and 98, and/or such that the parameter a* is equal to a value between 0.1 and 1.5, and/or such that the parameter b* is equal to a value between 0.5 and 4.

5. Specific fluid according to any one of the preceding claims, further comprising antifreeze, the concentration by mass of antifreeze being between 0%, limit excluded, and 40%, limit included.

6. Specific fluid according to any one of the preceding claims, wherein the specific fluid has an energy absorptivity of between 0.1 cm^{-1} and 10 cm^{-1} for solar radiation.

7. Specific fluid according to any one of the preceding claims, further comprising a surfactant, the concentration by mass of surfactant being between 0%, limit excluded, and 3%, limit included.

8. Specific fluid according to any one of the preceding claims, further comprising an antifoam, the concentration by mass of antifoam being between 0%, limit excluded, and 3%, limit included.

9. Specific fluid according to claim 8, wherein the concentration by mass of powder of calcium carbonate is 3%, the concentration by mass of antifreeze is 30%, the concentration by mass of surfactant is between 0.2% and 0.3% and the concentration by mass of antifoam is between 0.2% and 0.3%.

10. Specific fluid according to any one of the preceding claims, also comprising a bactericidal product.

11. Use of a specific fluid according to any one of the preceding claims, in a device for converting light radiation to heat, in which a light ray is directed towards said specific fluid, the specific fluid being the site of an energy conversion.

12. Device for converting light radiation to heat, comprising a specific fluid arranged in such a way as to be able to receive light radiation so as to be the site of an energy conversion, wherein the specific fluid is according to any one of Claim 1 r to 10.

13. Device according to Claim 12, further comprising a solar collector.

14. Specific fluid suitable for converting light radiation to heat, the specific fluid substantially as hereinbefore described and with reference to the Example.

15. Specific fluid suitable for converting light radiation to heat, substantially as hereinbefore described or exemplified and according to any one of claims 1 to 10.

CLAIMS

1. Specific fluid, characterized in that it comprises water and mineral powder which strongly scatters solar radiation, the strongly scattering mineral powder having a concentration by mass of between 1% and 3% and a median particle size of between 0.8 and 10 µm, the particles of the strongly scattering mineral powder having, on average, a light energy scattering coefficient of greater than 0.7.

2. Specific fluid according to the preceding claim, in which the strongly scattering mineral powder comprises calcium carbonate, or a synthetic or natural mineral powder.

3. Specific fluid according to the preceding claim, in which the strongly scattering mineral powder is calcium carbonate powder.

4. Specific fluid according to one of the preceding claims, in which the strongly scattering mineral powder has a median particle size of between 1 and 3 µm.

5. Specific fluid according to one of the preceding claims, in which the strongly scattering mineral powder is essentially constituted of spheroidal particles.

6. Specific fluid according to one of the preceding claims, in which the strongly scattering mineral powder has a CIE whiteness, measured according to DIN 6174, such that the parameter L* is equal to a value between 94 and 98, and/or such that the parameter a* is equal to a value between 0.1 and 1.5, and/or such that the parameter b* is equal to a value between 0.5 and 4.

7. Specific fluid according to one of the preceding claims, comprising antifreeze, the concentration by

mass of antifreeze being between 0%, limit excluded, and 40%, limit included.

8. Specific fluid according to one of the preceding claims, which has an energy absorptivity of between 0.1 and 10 cm^{-1} for solar radiation.

9. Specific fluid according to one of the preceding claims, comprising a surfactant, the concentration by mass of surfactant being between 0%, limit excluded, and 3%, limit included.

10. Specific fluid according to one of the preceding claims, comprising an antifoam, the concentration by mass of antifoam being between 0%, limit excluded, and 3%, limit included.

11. Specific fluid according to one of the preceding claims, in which the concentration by mass of mineral powder is 3%, the concentration by mass of antifreeze is 30%, the concentration by mass of surfactant is between 0.2% and 0.3% and the concentration by mass of antifoam is between 0.2% and 0.3%.

12. Specific fluid according to one of the preceding claims, also comprising a bactericidal product.

13. Use of a specific fluid according to one of the preceding claims, in a device for converting light radiation to heat, in which a light ray is directed towards said specific fluid, the specific fluid being the site of an energy conversion.

14. Device for converting light radiation to heat, comprising a specific fluid arranged in such a way as to be able to receive light radiation so as to be the site of an energy conversion, characterized in that the specific fluid is according to one of Claims 1 to 12.

15. Device according to Claim 14, comprising a solar collector.